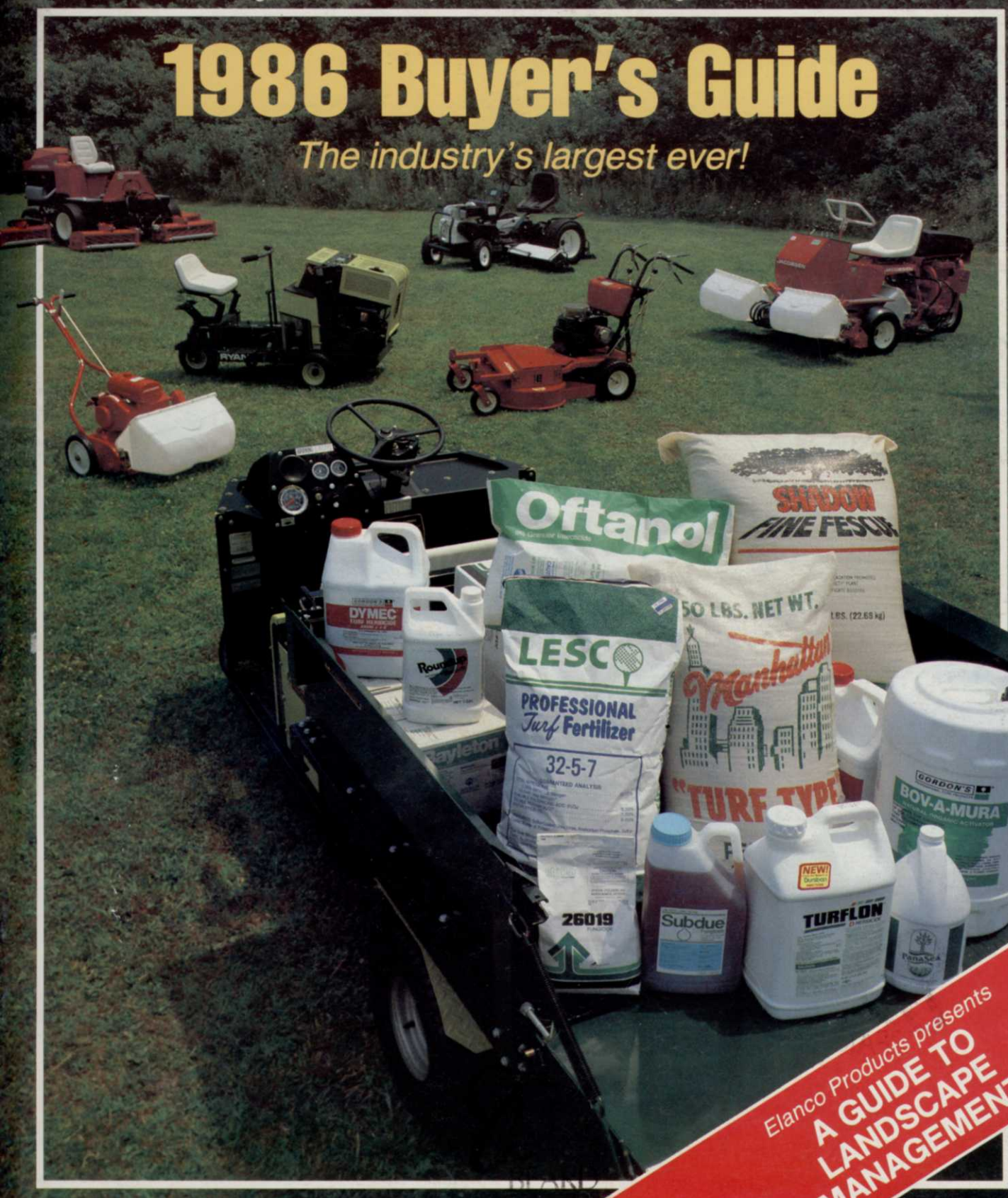
AN HBJ PUBLICATION

SEPTEMBER 1985/$2.00

WEEDS TREES & TURF

The Magazine of Landscape and Golf Course Management Since 1962



LAWNCARE
BY PROFESSIONALS

Service calls running you into the ground?

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Lazy products may not control all the weeds they should. They may miss wild violet, for example, or spurge, oxalis, ground ivy . . . or something else your customers may have. And there's no surer invitation to a profit-robbing service call.

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TURFLON D herbicide. It could be just what you need, if service calls are running you into the ground. Talk to your distributor today.

TURFLON
Cuts costly callbacks.

DOW

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Circle No. 113 on Reader Inquiry Card

REMINDER. *Fall is the best time to stop broadleaf weeds.*

5008

SEPTEMBER, 1985 VOLUME 24, NUMBER 9

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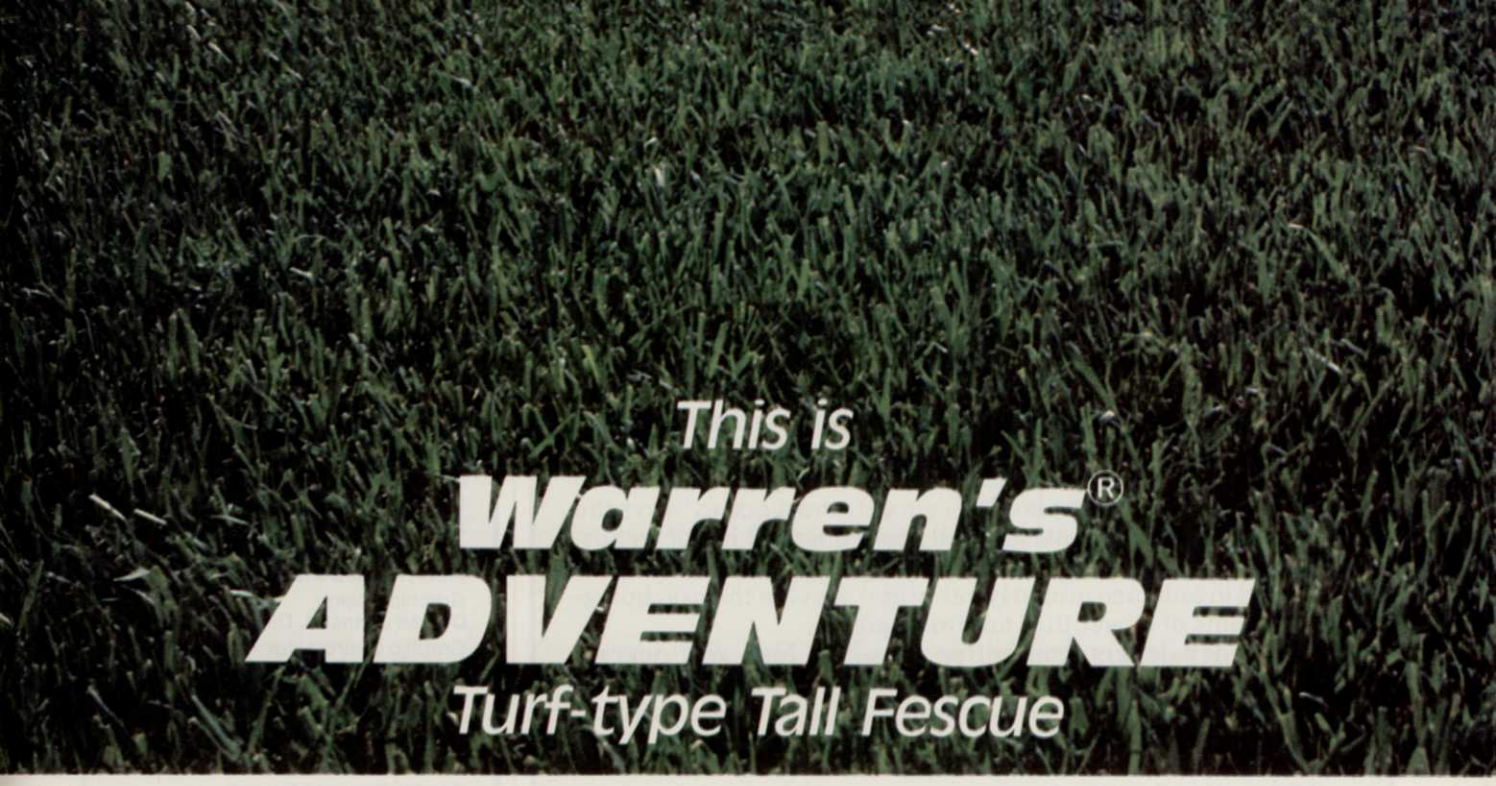

Rated better than its top competitors.

9 = very best 1 = very poor

Variety	Turf Quality	Spring Color	Brown Patch Resistance	Pythium Resistance
Warren's® ADVENTURE	**6.8**	**6.5**	**7.8**	**8.0**
Apache	6.7	*	6.5	5.0
Mustang	6.6	*	6.0	6.3
Olympic	6.5	5.8	5.8	5.3
Jaguar	6.1	*	7.3	6.0
Rebel	5.9	7.4	6.5	6.0
Hound Dog	5.9	*	6.2	6.2
Falcon	5.8	5.6	6.3	7.0
Kentucky 31	3.4	4.0	6.5	6.8

*Not reported

Data from Adelphia and North Brunswick, New Jersey, 1980 thru 1983

No matter what demands you put on Warren's® new ADVENTURE Turf-type Tall Fescue — turf quality . . . color . . . density . . . texture . . . toughness . . . heat and drought tolerance . . . you can count on performance that's proven superior against leading competitors.

The finer blade of ADVENTURE provides a denser more attractive turf than the older unimproved varieties. It requires less water and fertilizer than Kentucky Bluegrass or perennial ryegrass and is suited for heavy shade conditions as well as full sun.

In comparisons to "cool season grasses" ADVENTURE survives much better in the "transition zone" of the U.S. where it is often very hot and droughty. Wear tolerance for athletic fields, especially in the transition zone, is far superior to the old tall fescues.

SPECIFICATIONS

Mowing Height	¾" to 1½" on irrigated turf, 2" on "non-irrigated" turf dependent upon rain only.	**Germination Time**	7 days is normal (at 70°F). Responds better in high soil temperatures than bluegrass.
Fertility Requirements	2-3 pounds of N per year per 1000 square feet. ADVENTURE is less prone to iron chlorosis than leading competition.	**Heat Tolerance**	Excellent. Far superior to ryegrass or bluegrass.
		Cold Tolerance	Much better than perennial ryegrass.
Seeding Rate	5-7 pounds per thousand square feet.	**Fungus Susceptibility**	Superior resistance to brown patch and red thread. No mildew seen in shade. Good crown rust resistance.
pH Tolerance	Ranges of 4.7 to 8.5.		
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Circle No. 169 on Reader Inquiry Card

by the Editorial Staff, *Weeds Trees & Turf magazine*

Condo growth spurring industry

Condo dwellers want—and will receive—better quality landscape plantings and maintenance. This represents an additional market for the nursery and landscape industries, reports a select committee of the American Association of Nurserymen.

"New plant material introductions emphasizing small garden, high-intensity planting concepts must occur," says the committee, which meets annually to prepare of list of trends. "Like the single-family home dweller, there will be an increasing need to enhance property value and provide the psychological benefits of a beautiful environment."

Some developers, committee members feel, will operate their own nurseries and maintain landscape crews for the planting and maintenance demanded by tenants of multi-family units.

'Working' folk boost golf's impact

It's not the "idle rich" you see approaching that putt. It's working folk just like you and me. Or maybe our children, our spouses, or our retired parents.

The National Golf Foundation says 60 percent of golfers in the Southeast are either retired, students, or homemakers. The 40 percent making up the "employed" segment of golfers have a median income of $33,000.

How much do golfers spend on their hobby? A Foundation golfer profile survey of the Southeast suggests an annual figure of $1,280 for green fees or dues, equipment, cart rental, clothing and shoes. Again, this is a median, meaning that half the respondents reported lower expenditures, half higher.

Distributor turns baseball sponsor

David Meyer, secretary-treasurer of L.W. Meyer & Son in Sullivan, Wis., an Ariens distributor, is a big sports fan. He has found a way to plug both his company and his Milwaukee Brewers.

In each of the last three seasons, he has given the Brewer grounds crew Ariens equipment for field maintenance in exchange for a sponsorship role in local Brewer broadcasts fed to some 50 stations in Wisconsin and Michigan's Upper Peninsula. The Brewers' Charlie Moore is the Ariens spokesman during the telecasts.

"It's helped us," he says, "especially from a product awareness standpoint." On July 22, the Brewers held the third annual Ariens Dealer Appreciation Night where Ariens equipment was paraded around the field prior to the game. Some 256 people representing 100 dealers attended the event.

"The event has grown every year even though the Brewers are far from first place" and not drawing well, he says.

Harry Gill, superintendent of grounds and maintenance at Milwaukee County Stadium, and his grounds crew are now using the equipment on the field, where football's Green Bay Packers play half their home games. Meyer & Son is located some 30 miles west of Milwaukee

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4. RENOVATION IN PROGRESS DAY 15

1. SPRAY
DAY 1

2. SLICE
DAY 10

3. SEED
DAY 10

5. COMPLETED
RENOVATION
DAY 30

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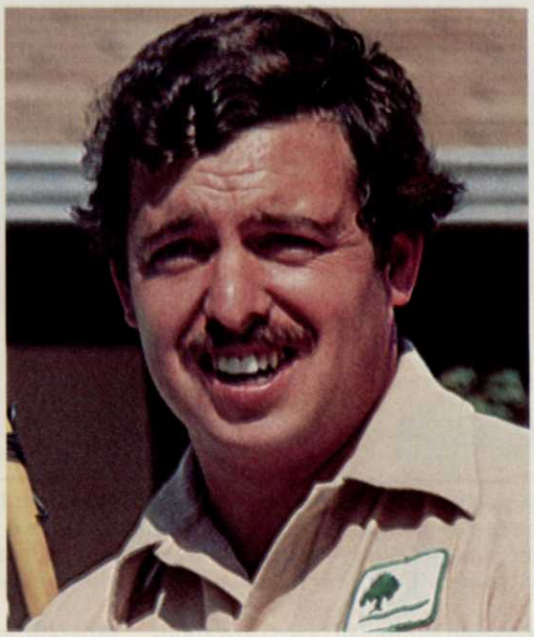

John Loyet, President
Greenscape Lawn & Tree
St. Louis, Mo.

"We put Roundup® herbicide on our customer's lawn, came back 10 days later to power rake it and then seed it. About 10 days after that, the perennial ryegrass we planted came up. We were just amazed at how good it looked.

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Monsanto

VERSATILE

EFFECTIVE

ChemLawn initiates sign-posting program

ChemLawn has begun posting signs on lawns after chemical treatment as part of a test program initiated in July in Montgomery County, Md. The signs read: "Lawn care application. Keep off until dry."

ChemLawn president Jack Van Fossen told a news conference in Rockville, Md., that other parts of the right to know program include notification of application product content, filing of chemical information with local government authorities, licensing of pesticide applicators, and prior notification to those hypersensitive to lawn care chemicals.

"While ChemLawn recognizes the safe nature of the products used in lawn care applications, it also recognizes that both its customers and the community at large may benefit from knowing when and where applications are made, whether on public or private property," says Van Fossen.

He says the right to know program is a result of pending legislation in Montgomery County as well as the trend toward local regulation of pesticides.

Van Fossen says the use of markers on chemically-treated lawns will expand if well-received in Montgomery County. "It is our hope that these markers will become a universally recognized symbol of lawn care application, whether by service companies or the homeowner," he says.

Other points of the right to know program may be expanded if ChemLawn's evaluation, scheduled for later this year, shows a positive public reaction.

Sign posting announcement. *Chemlawn President Jack Van Fossen, center, explains his company's plan to voluntarily place a lawn marker on every Montgomery County customer's lawn following treatment. Also pictured are Montgomery County officials Michael Gudis and Esther P. Gelman.*

RESEARCH

Weed control is cited No.1

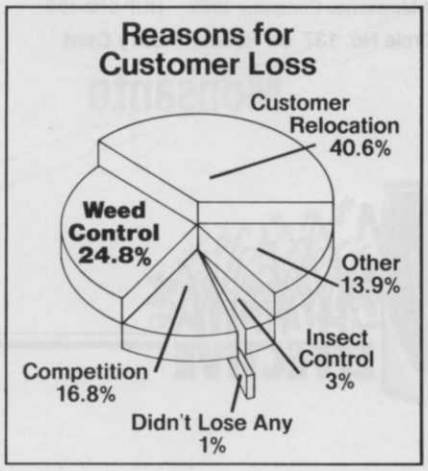
Weed control is the key to holding down chemical lawn care customer turnover.

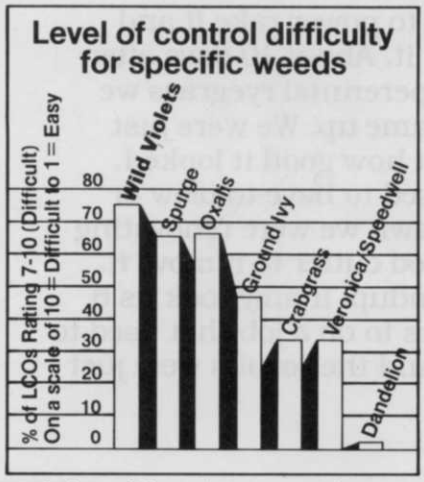
According to a survey conducted at last year's Professional Lawn Care Association of America convention, unsatisfactory weed control was the No.1 reason given for customer loss among firms with 5,000 or more accounts. Among the largest operations—those with 20,000 or more customers—poor weed control accounted for 58 percent of customer losses.

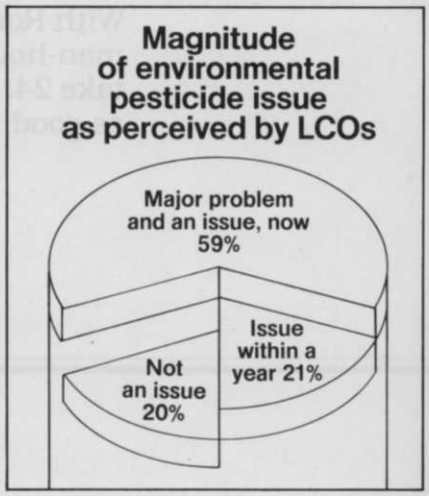
The No.1 culprit named in the survey was wild violet, with 75 percent of the respondents ranking it the toughest-to-control. Oxalis and spurge were next, followed by ground ivy, crabgrass and veronica/speedwell.

Overall, 40 percent of those surveyed reported customer retention rates of 90 percent or more, and 58 percent reported rates of 80 percent or more.

The survey was conducted by Dow Chemical Co., Midland, MI.







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GOLF

$1.7 billion spent on course maintenance

A joint National Golf Foundation/ Golf Course Superintendents Association of America study says U.S. golf courses spend $1.7 billion annually on maintaining their facilities.

"The Golf Course Maintenance Report," available through the NGF, is based on data from a fall, 1984 survey of more than 2,300 golf courses nationwide.

The study indicates $137 million is spent each year for new maintenance equipment and $103 million is spent on projects to improve existing facilities. The remaining $1.5 billion represents yearly maintenance operating costs.

"Personnel costs constitute the largest single expense category for maintaining the nation's golf courses," says GCSAA executive director Jim Prusa. "On the average, 60 to 70 percent of a golf course maintenance budget is for personnel costs, including salaries and wages, payroll taxes and employee benefits."

Dr. Joe Beditz, NGF director of research, tells WT&T that the courses surveyed ranged from the very small to the very large. "I consider the figures to be conservative," he says.

The study also says the nation's golf courses have a maintenance equipment inventory valued at over $1.8 billion.

Dr. Beditz says the expenditure figures will rise steadily in the future as the baby-boom generation ages and more courses are needed to accommodate the number of golfers.

He says another larger, more in-depth study will be conducted this fall on the nation's golfers and courses.

ASSOCIATION

Gail Morgan resigns as ALCA director

Gail Morgan, executive director of the Associated Landscape Contractors of America (ALCA), has resigned her position effective this month to begin a new pursuit.

"I'm taking on a new career of a husband and step-child," she tells WEEDS TREES & TURF. Morgan has been executive director since 1983.

She and her fiance will marry this fall. They are in the process of building a home on Maryland's eastern shore. Morgan says she will continue with ALCA on a temporary part-time basis to make for a smooth transition.

Landon Reeve, ALCA past president, is heading a search and selection committee to find a replacement. ALCA says it would like to replace Morgan before she moves to temporary part-time.

"I leave with many, many regrets," she says. "I've made many good friends. ALCA has been my family the last couple years."

ASSOCIATIONS

GCSAA gives $12,000 to research program

The Golf Course Superintendents Association of America (GCSAA) presented a $12,000 check for turfgrass research to the United States Golf Association (USGA) at the 1985 U.S. Open in Birmingham, MI.

GCSAA says the funding signifies the group's continuing commitment to the USGA/GCSAA Turfgrass Research Program.

"We look forward to continued success on our working relationship with our good friends at the GCSAA,"

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There are few places left whose appearance can't be improved by Toro.

And we'll let Mother Nature deal with those.

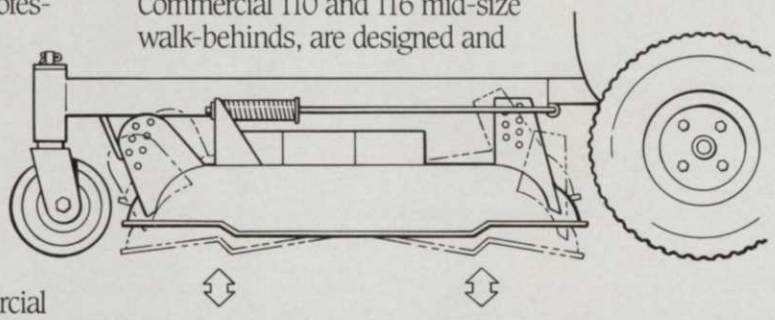
But for those places you're responsible for—office parks, recreational areas, residential areas and more—Toro equipment provides the attractive, finished appearance you can build a solid reputation on. And a thriving business.

Toro has the broadest line of equipment to insure that your customers will be repeat customers—riding and walk mowers; 36″, 44″, or 52″ decks; bagging options, edgers, trimmers, blowers, and more. And we're constantly fine-tuning and

improving our equipment—based on your feedback—to help you provide the highest quality, professionally maintained lawns.

And because Toro is constantly innovating (to make your job more profit able and your customers happier), we've just introduced two *new* Groundsmaster® riding mowers and two new Commercial mid-size walk mowers.

The Groundsmaster 117 and 217-D riders are seventeen horsepower, gasoline and diesel models. They, along with the two new Commercial 110 and 116 mid-size walk-behinds, are designed and



engineered to provide a quality cut in the most demanding conditions. They all utilize floating cutting units within carrier frames that let you follow the contour of the terrain with minimal scalping.

And Toro's grass collection systems and Wind-Tunnel® design let you collect the clippings or discharge them without clumping.

To keep your business growing, you need a reliable partner. One you can depend on to get the job done—Toro commercial equipment.

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for hours of professional use; continuous rough operation in a wide variety of cutting conditions. Each model is designed to require minimal maintenance and is rigorously tested to assure it meets your toughest demands.

But you need more than reliable equipment. When something does break down, you can't afford to have mowers waylaid in the shop. So your local Toro distributor or commercial dealer has the most common parts in stock for same-day pick-up.

Through our Direct Ship Program, you can get infrequently needed parts direct from the factory within a few days. For parts you need sooner, just let us know, and our Unit Down Program will enable us to get them to you as quickly as 24 hours.*

At Toro, we're not just looking for ways to help you get the job done. We're looking for ways to help you get it done faster, easier and on schedule. No matter what the conditions, no matter what the terrain.

What could be more economical than a Toro?

You can find cheaper equipment on the market, but how much will it cost you in the long run?

Would you rather build a business on reliable equipment that gets the job done on time, or on cheap equipment that breaks down and produces unhappy customers. It's a simple formula: happy customers equal profitability.

And if you're serious about profitability, few grass cutters can be as economical, or provide as much value as a Toro.

How can we keep your charges competitive when your competition is buying cheaper machines? By designing more productive, labor-saving mowers. With out-front cutting units and rear steering for better maneuverability. With more uphill and hillside stability and balanced designs. With more efficient grass collection systems. And with

comfort and safety designed into every machine for less driver fatigue.

We help you reduce operating costs with your choice of engines offering different fuel efficiencies—gasoline or diesel. We offer you two or four cycle engines on our Commercial mid-size walk mowers along with several horsepower options to adapt to your needs.

Toro equipment also helps you reduce your maintenance costs because of its rugged and durable construction. Strong frames and cutting decks are able to withstand the most punishing conditions—namely, a routine day on the job. Industry-proven engines provide maximum performance on those jobs where mowers have to run continuously and work hard. And high-capacity, replaceable, easy-to-maintain air and oil filters increase engine and transmission life.

When it comes to economy and value, Toro commercial equipment has the advantage. Our competitors' equipment may cost you a little less up front, but in terms of reliability, may cost you your customers in the long run. And that's a price no growing business can afford.

For more information on Toro economy and value, contact your local Toro distributor or commercial dealer. Or send in the coupon on the next page.

Toro, Groundsmaster and Wind-Tunnel are registered trademarks of The Toro Company.

*Customer eligibility for Toro's Unit Down and Direct Ship programs, and responsibility for freight and handling options, subject to local distributor option.

All 24-hour Unit Down parts delivery orders must be placed with Toro by 2:00 PM, Minneapolis time.

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Toro commercial equipment for profitability, a cut above the rest.

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A compact riding mower that performs the function of both a garden tractor and a walk-behind. 17 hp Kohler engine and hydrostatic transmission make this rider a powerful workhorse. 44″ or 52″ floating cutting decks with or without bagging.

GROUNDSMASTER 220 AND NEW 217-D

The new Groundsmaster 217 diesel provides the same quality of cut Toro has built its reputation on. And for less. Because the water-cooled, 17-hp diesel engine reduces operating costs and saves you money. The 217, or gas powered, 20-hp model is easy to maneuver and lets you cut in close to objects for trimming. 52″ or 62″ cutting decks are available along with a grass collection system for the 52″ cutter.

SIX 21″ WALK BEHIND MOWERS

All rugged and durable commercial units provide superior cutting. Two models have Toro's exclusive commercial 2-cycle engine; four are available with 4-cycle, five hp engines. You can choose the model you need for side or rear bagging.

GROUNDSMASTER 327 AND 322-D

The Groundsmaster 300's are the industry standards. They've built their reputation o power, durability and on-the-job performance. The Groundsmaster 327 with its new gas 27 hp engine, or the 322-D, 2 hp diesel, can be equipped with a 72″ side or rear discharge deck. Season accessories available for snow-blowing, plowing, leaf raking and more.

WALK POWER MOWERS, EDGERS, TRIMMERS, GENERATORS, BLOWERS

For those special jobs, Toro has the right equipment. *Edgers* are built with a 3.5 horsepower engine for tough commercial jobs. 4-cycle engines and blade tilt adjustment and curb drop wheel are standard. *Gas Trimmers*, with 2-cycle engines, provide you with trimming versatility. Three new straight shaft models are available for heavy-duty brush cutting along with a full range of blades and accessories. *Generators* available in seven models from 500 to 4,000 watts. 120 or 240 volt output. Automatic voltage regulator for steady output. *Back Pack Blower* sweeps walks, driveways, parking lots, stadiums. High velocity airstream from 40cc engine is easily directed to where it's needed.

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FORM NO. 86-176-T

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says USGA president James R. Hand. "On behalf of the USGA, I pledge our continued commitment to achieving the joint objectives of our Turfgrass Research Program."

The Turfgrass Program is aimed at developing improved turfgrasses that use 50 percent less water, require less maintenance, yet are still pleasing to the eye. The program was implemented because of the lack of, yet increased demand for, potable water for irrigation.

IRRIGATION

Former President Ford to speak at conference

Former U.S. Pres. Gerald R. Ford will give the keynote address at the Nov. 17-21 Irrigation In Action conference in Fresno, CA. He will speak on "Trends in American Politics and the Economy."

The event combines the Irrigation Association-sponsored International Irrigation Exposition and Conference, and the Third International Drip/Trickle Irrigation Congress, sponsored by the American Society of Agricultural Engineers.

Pres. Ford will speak at 9 a.m. on Nov. 18 in the Fresno Convention Center's Saroyan Theatre. A capacity crowd is expected for the event with seating preference given to early registrants.

Up to 10,000 participants from 35 countries, 400 exhibitors, and 200 speakers are expected for the event.

EQUIPMENT

New models debuted at anniversary show

Excel Industries' introduction of its four newest Hustlers highlighted the company's week-long 25th Anniversary "Excelebration" held at Excel's headquarters in Hesston, KS.

The four new Hustler machines, along with the full line of tractors and mower accessories, were demonstrated throughout the week and the 1,300 guests were treated to a barbeque and the Sixth Annual Excel Invitational Golf Tournament.

The event featured a full schedule of activities including a community open house, plant tours, and special entertainment. Excel president Roy Mullet accepted awards from the Kansas Dept. of Economic Development and the Hesston Chamber of Commerce in recognition of the company's contribution to Kansas industry.

Begun as a backyard machine shop in 1960, Excel boasts 1984 sales figures approaching $20 million. The company calls the introduction of the hydrostatic Hustler mower in 1969 "one of the keys to Excel's success."

Since entering the turf and grounds marketplace, Excel has developed 17 primary tractor models and more than 20 special attachments.

Excel hydraulics expert *Ray Rilling (left), president Roy Mullet (center) and John Regier, who build the first Hustler, chat near a display of two early Hustler models during the Excelebration.*

INDUSTRY

Chemical employees now firm's part-owners

Employees of the Hawkeye Chemical Company in Clinton, IA, are part of an investment group that has purchased the company from Texaco Inc.

The investor group, comprised of Hawkeye employees and management personnel, and venture capital companies, completed the leveraged buyout in June.

"What that means is that rather than buying a company for a large number of dollars, you put up a lesser amount—a little down and a lot borrowed," Hawkeye marketing manager Jim Ramstead tells WT&T. Employees have invested through a thrift plan, he says.

He says the new arrangement will benefit both employees and management. "The employees now have an ownership position and they certainly have a lot more interest in the company," he says.

Four other businesses are involved in the ownership. The investor group was formed by The Sterling Group of Houston, a privately-owned investment banking group.

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For more information on TORO COMPANY
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IN-THE-MIDDLE

Good report from Lesco

Lesco, Inc., Rocky River, OH, recently circulated a positive annual report to its shareholders.

One of the points chairman and chief executive officer James I. FitzGibbon made was that the company is now developing a riding greens mower which "has good potential."

"We now manufacture or license for manufacture about 80 percent of the products we sell," FitzGibbon said. "I want to see that number improve to 90 percent or better."

In the name of research

A check for $736 was recently presented to the Southern California Golf Course Superintendents Association by Target Chemical Co. According to GCSASC president Steve Jessup, the funds will be used to promote the educations of students working toward degrees in turfgrass management.

Scholarships will be awarded to juniors or seniors at Cal Poly who meet research and scholarship criteria. A portion of the funds are earmarked for furthering research in this area at the University of California, Riverside.

Ohio company joins elite club

Toledo Turf Equipment of Toledo, OH, has joined The Andersons' $100,000 Club, according to company officials.

Toledo Turf Equipment was inadvertently excluded from the list of The Andersons' elite distributors in the July, 1985, issue of WEEDS TREES & TURF.

Jacobsen holds 18th turf seminar

It's been said that college is the place to learn theories but the real world is where the real education begins.

Jacobsen Division of Textron Inc. once again gave college students the opportunity to experience the real world during its 18th annual College Student Turf Seminar held recently in Racine, Wisc.

The 44 students, from the U.S. and Canada, received instruction in basic management and technical aspects of turf care from Jacobsen executives and area turf professionals during the week-long seminar.

Among the courses held were budgeting, preventative maintenance, personnel selection, and equipment selection.

Established in 1967, the seminar is aimed at students planning careers in golf course or park management, landscaping, or similar positions.

"Our seminar has been designed to give students an introduction to the professional world of turf and grounds care before they launch their careers," says Jacobsen vice-president, sales, Ned Brinkman.

"By having accomplished practitioners from various areas of our field work closely with the student, and by providing them with hands-on experience, we hope to make them better decision-makers on their way to management positions."

ASSOCIATIONS

Roadside group eyes grassroots participation

The year-old National Roadside Vegetation Management Association (NRVMA) is anxious to build support among local subdivisions as well as at the state level where many of its members now come from.

"We have good representation from state governments. We want to get more counties, parishes, and municipalities involved so we can be as responsive as possible in developing a total vegetation management program," says Bob Berger, NRVMA vice president and an official in the Washington State Highway Dept.

Last fall the NRVMA drew 300 paying guests to its first conference. This year the number is expected to increase to 500. Because of the growth, the NRVMA is considering taking on an executive director as well as adding board members.

The NRVMA's second conference set for Oct. 1-3 at the Radisson Muehlebach Hotel in Kansas City, MO, might also see the implementation of a national awards program and a split of at least part of the program into warm and cool season grass sessions.

Although Berger, in charge of this year's conference, is confident a sizable trade show can be built in conjunction with the annual conference, booth space is limited this year.

NRVMA officers *Standing: (left) Andy Lewis, president, and (right) Chuck Middleton, secretary/treasurer. Lewis works with the Florida Dept. of Transportation, Middleton for Velsicol. Seated is Robert Berger, vice president and an official with Washington State Highways.*

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Vorlan's effectiveness — because it takes so little and lasts so long — also makes it economical, too.

If you haven't yet tried Vorlan, you should. Call Mallinckrodt toll-free, or contact your Mallinckrodt Turf Products distributor. No prescription is needed!

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MAINTENANCE

Double engine life with simple measures

George R. Thompson of Briggs & Stratton says four quick procedures provide money-saving performance and longevity dividends with outdoor power equipment.

They are: use clean, "fresh" gas, change oil regularly, service the air cleaner, and clean the cooling system periodically.

Thompson says Briggs & Stratton engines work equally well on regular or lead-free fuels, but lead-free results in reduced combustion deposits and longer engine life. It is not recommended that fuel be used from one season to another. A 30-day supply is adequate.

An oil change is recommended after 20 to 25 hours of engine use. Thompson recommends a high-grade oil with high viscosity. Oil levels should be checked regularly.

If the air cleaner is of the "oil foam" variety it can be cleaned with kerosene or liquid detergent, then re-oiled with clean engine oil. Air cleaner elements should be cleaned every three months or every 25 hours, whichever comes first, Thompson says, more often under dusty conditions.

A clogged cooling system can cause overheating and eventual engine damage. It's important to clean the cooling system. Debris can enter the blower housing and clog the cooling fins.

PEOPLE

Names in the news

Eugene D. Baston, president of the **Golf Course Superintendents Association of America (GCSAA)**, has moved west to Waco, TX, where he is now golf course superintendent of Ridgewood Country Club. He is the former superintendent of Percy Marcum Golf Club in Birmingham, AL. Ridgewood CC, located adjacent to Lake Waco, is an 18-hole private course with tennis courts and a marina.

Robert T. Giaquinta, a 37-year-old research manager in **Dupont's** Agricultural Chemicals Department, earned special recognition from his peers recently. Dr. Giaquinta was named the 1985 Outstanding Young Plant Biologist by the 4,000-member American Society of Plant Physiologists at the society's annual meeting in Providence, RI.

The author of numerous research articles and book chapters on photosynthesis and related topics, Dr. Giaquinta garnered the award for his research on biochemical mechanisms of sugar transport in crop plants and their relationship to increased yields. He is president of the Plant Growth Regulation Society of America.

The **American Society of Golf Course Architects** accepted four new associate members during its summer meeting in Ireland. They are: **Kenneth Dye Jr.**, Houston; **Steven P. Forrest**, Toledo, OH; **Clyde B. Johnston**, Hilton Head, SC; and **Damian V. Pascuzzo**, Walnut Creek, CA. The group also elected three regular members: **Gary Linn**, Palo Alto, CA; **William Love**, Wheaton, MD; and **David Rainville**, Tustin, CA.

Dr. David Casnoff is new director of turf research at the **Northrup King Co.**. He oversees the company's na-

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Dependable Sweeper

Two year warranty. Covers 5½ ft. path, cleans up to 200,000 sq. ft. per hour. Options: Multi-Level High Dump, diesel, grime-removal package, snow removal blade.

Tough, Versatile Sweepers

Unsurpassed pickup/dust control—II-SPEED™ sweeping, 2-stage filter. Sweep over 10,000 sq. ft./hr. Multi-level dump, scrubber, snow removal options.

Productive Sweeper

New Power Throw System™ sweeps 178,000 sq. ft./hr. 50% faster, 41% more useable hopper space than comparable units. Quiet: 82-83 dBA. 2 yr./2,000 hr. warranty.

Congested-Area Sweeper

TENNANT® 210 cleans a 46" path. It's compact, highly maneuverable—sweeps 4 times faster than walk-behind models. Gas or battery power.

Toughest Walk-Behind Sweeper

Rugged 42HD sweeps a 34" path, cleans up to 18,000 sq. ft. per hour—6 times faster than a pushbroom. Optional scrubber attachment. Gas, LP or battery power.

Scrubbers

Large-Capacity Scrubber

TENNANT® 550 scrubs a 50" path, up to 81,000 sq. ft. per hour. With SRS™ water re-use option, it scrubs up to 6 hours non-stop. Gas, LP, diesel or battery.

Heavy-Duty Scrubber

TENNANT® 527 scrubs a 43" path, up to 68,000 sq. ft. per hour. Scrubs 4 hours non-stop with SRS™ option, available only from Tennant Company.

Tight-Area Scrubber

Scrub 32" path, up to 29,500 sq. ft./hr. Pre-Sweep™ also picks up debris. ES® option reuses water to scrub 2½ hrs. non-stop. Type "EE" available.

Scarifier

Grime-Removing Scarifier

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Circle No. 159 on Reader Inquiry Card

TODAY'S VEGETATION CONTROL SPECIALIST HAS TO LOOK A LOT OF PEOPLE STRAIGHT IN THE EYE.

Annual total vegetation control today is a lot more sophisticated than just killing weeds. You have to get the job done economically enough for your budget, simply enough for your work crews, and responsibly enough for the environment. That's why Cyanamid developed ARSENAL® herbicide. Its advanced chemistry answers the needs of all people involved.

WHY ARSENAL IS EASY ON THE ENVIRONMENT.

Because of its unique mode of action, ARSENAL, when used as directed, has no harmful effects on mammals, fish, bees, birds or earthworms. Because ARSENAL is non-volatile and does not move laterally in the soil, off-target vegetation is unaffected. ARSENAL is non-flammable. Its unique chemical activity causes a slow "burn-down" in foliage, so it poses little fire hazard. Unlike tank mixes, ARSENAL introduces only one biodegradable product into the environment. And it's applied only once during a season, resulting in a lower chemical burden and a reduction in "touch-up" treatments.

CONTROLS MORE UNDESIRABLE VEGETATION.

ARSENAL has demonstrated control of a broad spectrum of weeds, vines and brush species. Tests in southern states showed that ARSENAL alone (at rates of two quarts per acre) out-performed several tank mixes for annual and perennial weed control. Even more impressive, ARSENAL was most effective on difficult species like Johnsongrass, trumpetcreeper, kudzu and red maple.

ONE APPLICATION GIVES SEASON-LONG CONTROL.

ARSENAL gives you full-season control for up to eight months in temperate climates. It fits your spray schedule, because it can be applied at any time during the growing season. ARSENAL controls not only existing vegetation, but also new weeds that germinate after application. So you get residual control for the rest of the season. On hard-to-kill vegetation, ARSENAL keeps working on the roots until complete control is achieved. In spray solution, ARSENAL is stable for several days. That means no waste due to decomposition, and no chance of under-dosing target vegetation.

ARSENAL offers broad-spectrum control, including these tough species:

Johnsongrass	Blackberry
Trumpetcreeper	Bindweed
Poison ivy	Canada thistle
Greenbriar	Foxtails
Redvine	Red maple
Kochia	Kudzu
Multiflora rose	Sumac

DUAL ACTION CONTROLS IN A WHOLE NEW WAY.

Unlike most other herbicides, ARSENAL is absorbed through both roots and foliage to stop new cell growth. Vegetation absorbs ARSENAL in less than two hours, so rain won't wash off your investment. Within four hours, plant growth ceases. In perennials, ARSENAL translocates thoroughly in the roots to prevent regrowth. This unique chemistry makes the visible results of control more gradual. In some vegetation, loss of color and other outward signs may not be apparent for weeks after application. After a year or more, returning vegetation is mainly desirable annual grasses and legumes.

ARSENAL IS RIGHT FOR YOUR RIGHTS-OF-WAY.

On railroad, highway or industrial rights-of-way, around power substations, signal boxes, bridge abutments, lumber or freight yards—wherever you need annual total vegetation control, ARSENAL is the smart new choice for the job.

Always read and follow label directions carefully.

TOUGH ON WEEDS. EASY ON THE ENVIRONMENT.

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ARSENAL® herbicide

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SPORTS TURF

by Ron Hall, associate editor

Infield action

It's arguably the most exciting play in sports and too often one of the most painful; the simultaneous arrival of baseball and runner and the slide over baked clay at home plate.

Don Sadler, the barrelchested maintenance supervisor for the Canadian city of Etobicoke (pronounced AY-TOE-BE-COE) near Toronto, works to take the sting out of the play. That's just one of the benefits of a properly prepared infield; firm for good footing and true hops, yet soft enough that it doesn't flay a sliding baserunner.

Catch the action any summer afternoon.

He's your boy, he's all arms, legs, and joints working at cross purposes and he's rounding third, jets working. The relay from centerfield to the shortstop to the plate is chest high. The teen-age baserunner's automatic pilot flashes *down*, and the runner, right knee tucked, skids in a scraping duststorm of flying gravel.

First there's just a touch of red below the rip in the knee of the baseball pants (pants that some sponsoring merchant shelled out money for and under normal circumstances couldn't be cut with a chainsaw), then the blood spreads along the outside of the calf from knee to ankle.

The composition of the infield is the key. Many of Sadler's fields, particularly the softball fields, contain six inches of worked-in hazemag.

"It's crushed round gravel, not crushed stone," says Sadler. "Crushed stone has jagged edges. You don't want that."

The material—available from most sizable aggregate companies—should be screened to 3/16th-inch-minus.

Although Harry Gill, veteran groundskeeper for Milwaukee County Stadium and the professional baseball Brewers, prefers "more pointy" chips of sand and not round beach sand which he feels stays "loose and movey," both groundsmen agree that crushed limestone screenings or rock dust is unacceptable.

Major league groundskeepers' jobs hinge on their ability to provide major league-quality infields, but the infields of many of our community ball fields—most of them totally *skin*—aren't adequate. Too much clay baked by the mid-summer sun and given perfunctory smoothing and raking, they play like concrete. Rains and they don't drain; players skate.

Sadler, an avid amateur softball player, gives his infields the attention they deserve, including working the material around the bases several inches down with a rake before play.

tionwide program of development and testing from the Northrup King Research Station in Mount Joy, PA.

N. Wayne Rish has been promoted to vice president marketing-agricultural chemicals for **Elanco Products Co.**, the agricultural marketing division of Eli Lilly and Co. Rish joined the company in 1969 as a sales trainee, worked his way up, and in 1982 was named director of agrichemical sales for Elanco.

N. Wayne Rish

A native of Lexington, SC, Rish holds bachelor's and master's degrees in agriculture from Clemson University.

Vermeer Manufacturing Co., Pella, IA, has appointed **Lyle Borg** vice president of sales and marketing of all Vermeer products in North America. He had been sales manager for both industrial and agricultural divisions.

Carl Boat, senior vice president of Vermeer who had handled sales and marketing, now directs international operations. Also, **Larry Hutchinson** is new education and training manager with **Al VanderLinden** filling Hutchinson's previous post as industrial service manager. **Lee Wright** steps in as Vermeer's service manager, a responsibility similar to that of VanderLinden, only in the agricultural division.

Mickey Strauss, president of American Landscape Inc. of Canoga Park, CA, has been installed as president of the **California Landscape & Irrigation Council**. He also served as president of the California Landscape Contractors Association in 1981.

Mickey Strauss

Don Fisher

Don Fisher will be working with Southern California architects, irrigation consultants, and municipalities in his new post as specification sales manager for **Toro Irrigation** of Riverside, CA. Fisher joined the Irrigation Division in 1978 as a warehouse supervisor.

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Circle No. 123 on Reader Inquiry Card

RCRA amendments

New laws which went into effect last month could play havoc with the profit margins of commercial pesticide applicators.

by Art Zimmerman

Amendments to the Resource Conservation and Recovery Act (RCRA) passed by Congress last November promise to have the general effect of tightening this country's hazardous waste management rules.

The amendments will bring many small quantity generators (SQGs) under hazardous waste management rules for the first time.

The EPA estimates an added 175,000 businesses that produce small quantities of hazardous waste will be subject to the new regulations.

The amendments lower the minimum regulated quantity of hazardous waste from 2,200 pounds to 220 pounds a month, but will add only another one-half percent (approximately 800,000 metric tons) to the total being regulated.

EPA study

The EPA conducted a survey of 22 industries considered most likely to have newly-regulated generators, including the "pesticide industry." This category is divided into two groups: "pesticide end users," such as golf course superintendents, and "pesticide applicators," such as lawn care service contractors.

Of the 11,000 possible SQGs, about 2,000 generate between 220 and 2,200 pounds a month (from half of a 55-gallon drum to five 55-gallon drums), making them subject to the new hazardous waste regulation.

All those who generate between 220 and 2,200 pounds of hazardous waste per month have begun to use the Uniform National Manifest when shipping hazardous waste off-site. The amendments further mandated that SQG hazardous waste not managed at a full hazardous waste disposal site (a Subtitle C facility), must only be disposed of at a state-approved municipal or industry facility.

Art Zimmerman is an experienced freelance writer from Cleveland, Ohio.

By March 31, 1986, the EPA must decree final rules for handling hazardous waste generated in the SQG category.

Some states have been approved by the EPA to administer portions of the hazardous waste management program, but some state requirements may be stricter than federal requirements. Because of this, businesses believing they will be affected by the new regulation should contact their individual state environmental protection agencies.

Statutory requirement

The new RCRA amendments also mandate that on-site storage of hazardous wastes may occur for 180 days (maximum) without a permit (though there are provisions for extensions to 270 days).

During the interim period, SQGs will not be required to fill out all the information on the Uniform National Manifest form, nor complete the entire paper trail from originator to final disposition and back to original generator now required of large scale generators.

The information that must be provided on the manifest form includes the name and address of the generator, the U.S. Department of Transportation description of the waste, the number and type of containers, the quantity of the waste, and name and address of the facility to which the waste is being shipped, according to Barry Stoll, the EPA's assessment program manager for SQGs in the Office of Solid Waste.

Small quantity generators must be wary of waste disposal sites

If you come under the new definition of a small quantity generator (SQG), there are additional complications with RCRA amendments you must be aware of.

"A lot of people forget that even if you comply with all the requirements of RCRA and you send your waste to a site which later has a problem under CERLA (Comprehensive Environmental Response and Liability Act—also known as the Superfund act), you're in trouble." says Jeff Barnes, a partner in the Cleveland (Ohio) law firm of Squire, Sanders and Dempsey, which has a significant environmental law department.

"CERLA says if a company generates a hazardous substance, it doesn't have to be a waste," Barnes says, "and that's a very long list which incorporates by reference the lists that appear in the Clean Water Act and RCRA. That company is responsible for it wherever it ends up.

"So, if your waste ends up in a site which later has to be cleaned up, you may be responsible for the cost not only of cleaning your own waste but 'jointly' for somebody else's wastes in the same dump," he says.

Tony Sasson, the Ohio EPA's small quantity generator expert, agrees. "We just fined a small generator $7,000 because he gave his material to someone who was just 'passing through,'" Sasson says. "It turned out the transporter took it and just left it beside the road somewhere. We were able to trace it back to the original generator who was held responsible for that." □

Hazardous waste sites *like this is what Congress hopes to end with the new RCRA amendments.*

"All we're doing is letting the statutory requirement go into effect; we're not trying to impose anything further at this point," says Stoll. "The partial use of the Uniform National Manifest at this point is essentially to serve notice or as a label to inform people handling the material of what is in the shipment."

As the web of information is developed, it is wise (even for small waste generators) to check on their transporters and, if possible, to make an on-site visit to their disposal facilities to be certain things are being handled correctly.

If there is any question about what materials can and cannot be put down local sanitary sewers, it is best to check with the local waste water treatment authority. Some industrial wastes can be accommodated at the local treatment facility, others cannot. The terms and conditions of industrial wastes in sewer streams are controlled under the Clean Water Act.

Probably the first question any small quantity generator should ask is whether his particular wastes are classified as hazardous. More than 400 chemicals and compounds are listed as hazardous under RCRA, and those lists are being added to constantly. The list appears once a year in the *Code of Federal Regulations* (at 40 CFR Part 260.30). Additions made during the year are printed in the *Federal Register*, as the definition of "hazardous waste" is a moving target.

For the most up-to-date information on listed materials, questions can be addressed to EPA's toll-free hot line, (800) 424-9346. Small quantity generators can also call EPA's Small Business Hotline, (800) 368-5888.

The EPA has a mandate from Congress to go through the full proposal, comment period, and revision cycle before issuing permanent regulations. Also, the EPA is required to undertake an educational/assistance program, working with trade associations and small business organizations, to inform and educate, members.

SQGs should make sure their organizations contact the state, regional, and federal EPA's and establish lines of communication.

Other portions of the 1984 amendments which may affect applicators as well:

- The Leaking Underground Storage Tanks (LUST) program mandates regulation of underground storage of products and wastes for the first time. No new underground tanks may be installed after May 7, 1985, unless they meet new standards.
- There is also a massive underground tank registration program, to be issued by November, 1985, and implemented by May, 1986.
- Probably the most important provisions are those banning or restricting the disposal of hazardous wastes in landfills. These include a "hammer" provision, which says unless the federal EPA positively concludes that disposal of certain wastes is safe in landfills, the disposal becomes prohibited.

WT&T

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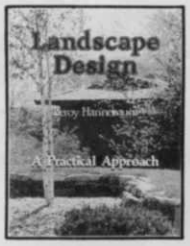

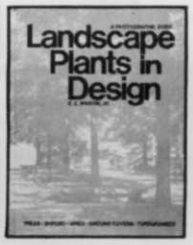

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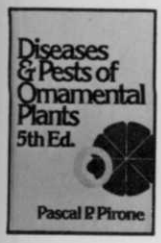

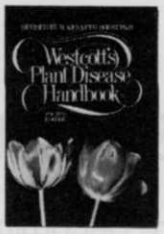

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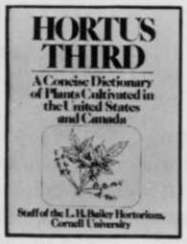

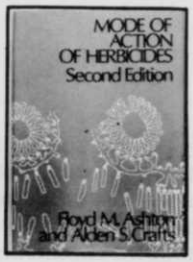

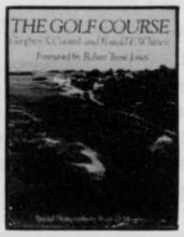

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WTT 95

LANDSCAPE MANAGEMENT

Distributors: optimistic but wary

Green Industry suppliers are becoming more aggressive in a business economy that promises good rewards, but also keener competition and tighter margins.

by Ron Hall, associate editor

The concerns—stiffer competition, shorter margins—are real. Distributors and dealers serving the Green Industry can't whistle them away. Even so, the coming months should be good ones, an informal WEEDS TREES & TURF suggests.

Our poll reveals strong distributor enthusiasm for the coming year, guarded optimism for the longer haul. It also shows distributors taking aggressive action to remain players. The stakes in the game are growing, but not fast enough to allow every would-be participant a financial score.

"We are in a growth market so business will be good," says the head of a $2.5 million dealer/distributorship. "However, margins will continue to be squeezed, particularly on our primary products: fertilizers, chemicals, and grass seed."

Almost 83 percent of those responding to the *WT&T* query (a surprising 35 percent of those contacted answered) anticipate increased sales in the coming year with 12 percent feeling business will remain about the same. Five percent see sales dropping.

Two out of every three respondents beefed up inventories for the 1985-86 selling season.

Enthusiasm is tempered, however.

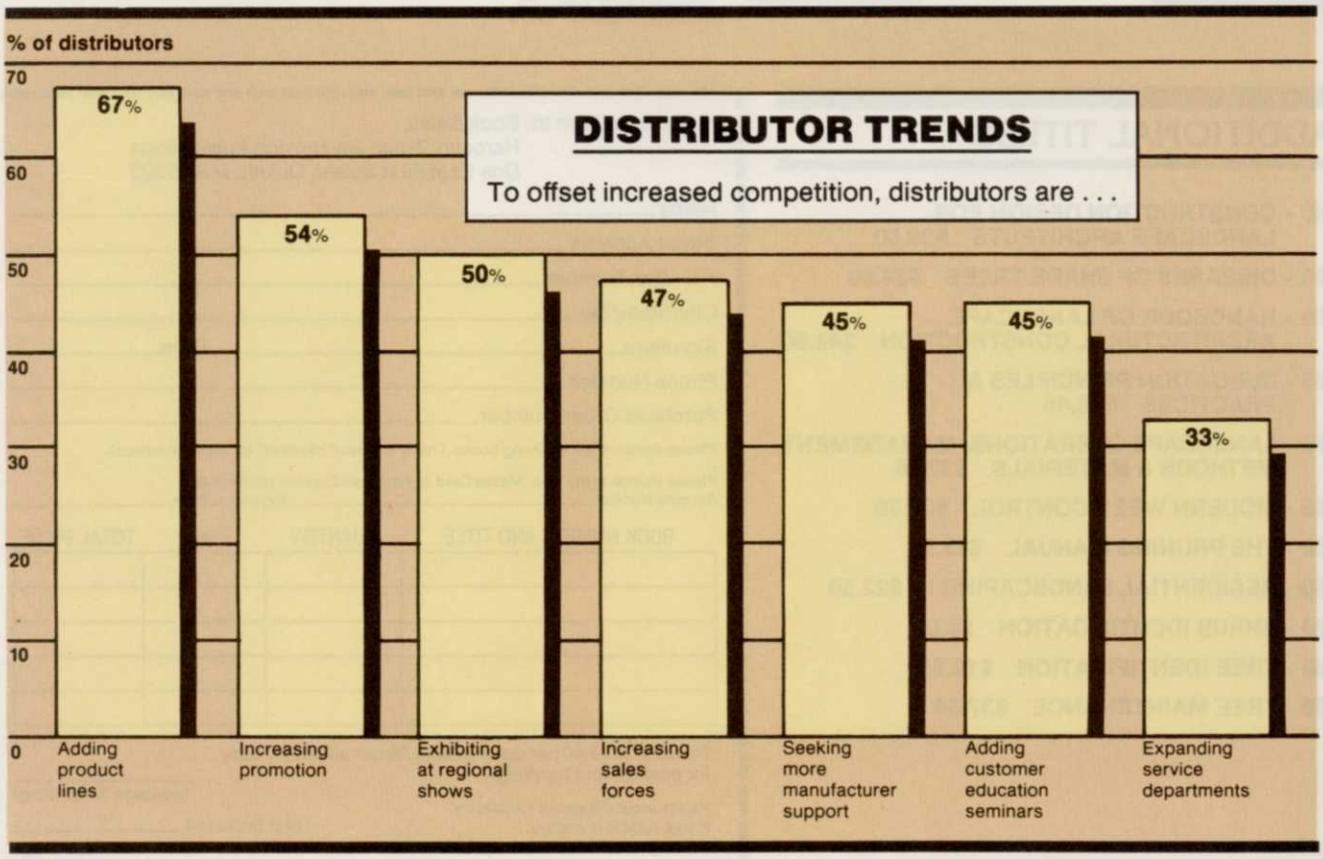
A chemical distributor writes: "More manufacturers. More models. More dealers. Not many more customers."

Concerns (listed in the frequency of their appearance in the poll) are:

1. Reduced margins.

2. Increased competition from a growing number of domestic manufacturers with similar lines and the impact of imported products.

3. Direct sales by manufacturers



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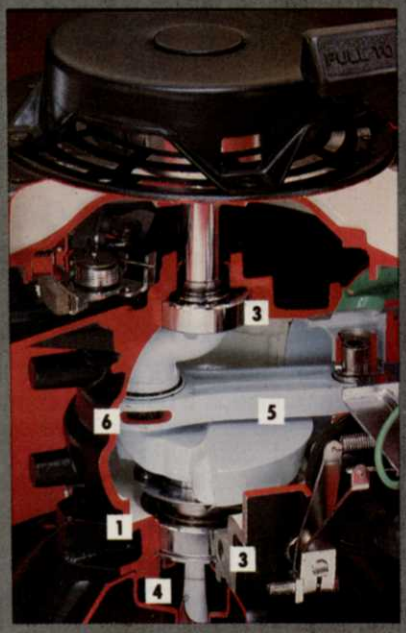

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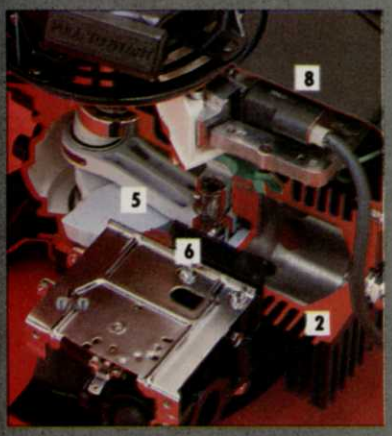

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FACTS ABOUT WT&T DISTRIBUTORS:

- ☐ Typically, is owner, president or general manager of a $2.3 million business.
- ☐ Half are distributors and dealers.
- ☐ 67% sell chemicals.
- ☐ 50% sell turfseed.
- ☐ 40% sell golf course equipment.
- ☐ 40% sell irrigation equipment.
- ☐ 33% sell consumer lawn equipment.
- ☐ 18% of sales is to homeowners.

and price pressure exerted by large national and regional operators.

4. Price cutting.

5. Government regulations and the specter of additional ones for chemical applicators.

None stands by itself. All are interconnected. Respondents to the *WT&T* survey fretted to a lesser extent about the growth of discount chains, credit problems with under-capitalized commercial accounts, and the lack of qualified personnel entering the distributor network.

Lower margins (specifically mentioned as a "trend" by 12% of our respondents) cause one special products manager to reflect: "Just how much service can I provide and still turn a profit?" An equipment distributor sees "some dropouts within the next two to five years. The volume is not there to support a replacement for the farm market or for the consumer market." While a third supplier predicts, "the industry cannot survive on the margins being made today."

Tied to reduced margins is price cutting. Four out of five distributors feel price cutting is "more common" now than a year ago although one distributor described the practice as "not more common, just more intense."

"Many distributors and dealers feel price cutting is necessary," the head of a $10 million firm notes. "This, of course, has gone on for years but I believe it is increasing due to the success (for a short time) of the retail discount stores."

The distributor-manufacturer relationship, like any marriage of interests, is not without its disagreements. Raising the ire of some distributors are direct sales by manufacturers to large national buyers. Customers benefitting from these sales "look for service locally or look for warranty locally and the local people get nothing out of the sale," says one businessman.

To offset these trends distributors are:

—Adding product lines. 67% in the *WT&T* poll indicate they will expand product offerings. Of the remaining 33%, reductions are most often being eyed for similar products from different manufacturers, or low profit items. 33% are expanding service/repair departments.

—Increasing promotion (54% of respondents).

—Seeking more manufacturer support (45%).

—Exhibiting at regional shows (50%).

—Adding education seminars for customers (45%).

—Increasing sales force (47%. Only 5% planned sales force reductions).

And, who are the best customers of the distributors and dealers? Golf course superintendents were near the top of the list for 60% of the respondents followed by landscape contractors (55%), parks and schools (52%), commercial lawn care (35%), general public (30%), and athletic field managers (28%).

Says the president of one $1.3 million distribution firm, "The business climate is excellent, particularly combined with the decline in interest rates, freeing up loan money and leasing money and at a better rate."

The message coming from the survey: as long as the national economy remains strong most distributors serving the turf and landscape industries are confident they will find ways to prosper.

The realities of increased competition and tighter margins, however, are causing distributors to reassess their offerings (with some expanding into turf-complimentary lines) and to rethink the amount of service they can offer to remain profitable—and competitive.

* * * *

The "typical" respondent to the *WT&T* survey was either the president, owner, or general manager of a business doing $2.3 worth of business with golf and landscape customers (high of $20 million, low of $30,000). Slightly under half described themselves as both distributors *and* dealers. Almost two-thirds of those we contacted handled chemicals; 50% dealt with seed, 40% golf course equipment and irrigation supplies, and 33% consumer lawn equipment. 18% of their sales is to homeowners. **WT&T**

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Circle No. 184 on Reader Inquiry Card

LANDSCAPE MANAGEMENT

On top north of the border

G.C. Duke Equipment Ltd. remains king of Canadian turf equipment distributors by keeping abreast of the newest maintenance equipment. Its reward? $15 million in annual sales.

by Ron Hall, associate editor

Salesman Dick Raycroft eases into the cushioned saddle of the tractor as the huge Dutch-built Verti-Drain aerifier, driving 16-inch spikes into the hardpan of sunbaked parkland, bucks and heaves behind him.

Thirty years of demonstrations like this make G.C. Duke Equipment Ltd. the largest distributor of turf equipment in Canada.

"We sell by demonstration," says Duke sales manager Jim Tanner. "The customer has to see what any piece of machinery can do under his conditions."

Big doings

This month, G.C. Duke Equipment expects to attract 2,000 visitors to its Lawn-O-Rama, a day of equipment demonstrations and displays wrapped around a fish fry at its five-acre Burlington, Ontario, headquarters. Lawn-O-Rama occurs every other year. Off-years are devoted to six weeks of customer service schools. "Hands on" is Duke Equipment's way of doing business.

The payoff is sales of $15 million (and growing) annually.

Sales boss *Jim Tanner shows off Duke's newest offerings in front of the company's headquarters.*

Joe, why is it important to have a fungicide that will work against a lot of different fungus diseases? "At any given time, conditions may be right for three or more different fungus diseases. And others may be dormant in your turf, waiting for conditions to change. You never really know what you'll be up against next."

What makes Fertilizer Plus Fungicide VIII so special? "It's a broad-spectrum fungicide—among the broadest on the market, in fact. It handles dollar spot, brown patch, leaf spot, red leaf spot, and pink snow mold. And it's a double-barreled weapon against disease: it works first on contact for quick action, then systemically for additional protection."

Sounds like that would be helpful to any turf manager. "Sure would. It makes things a little handier—you don't have to pick and choose from among several products for the best treatment."

What about follow-up outbreaks of those diseases? "You don't have to be as concerned about future disease problems, because Fertilizer Plus Fungicide VIII does more than just cure. It's also effective as a preventative."

How often should you apply it? "Every 10 days to 3 weeks, depending on the severity of the disease pressure."

Won't that be too much nitrogen? "No. At the recommended application rates, you'd be using a modest amount of nitrogen consistent with the development of quality greens."

How does the price compare with other alternatives? "The pricing is very competitive. Considering that the alternative is normally a combination of products—which may even call for different methods of application—I think a lot of turf managers will end up saving money with this fungicide combination."

For more information about Fertilizer Plus Fungicide VIII, call your ProTurf® Tech Rep. Or call Scotts® direct at 800-543-0006.

"Economy and broad-spectrum action will make this one of your most powerful weapons against turf disease."

Joe Bell, Scotts Research project leader (Turfgrass Fungicide R&D), talks about new **Fertilizer Plus Fungicide VIII.**

Circle No. 145 on Reader Inquiry Card

"Our range of equipment includes everything from a $15 string trimmer to an airport runway snow blower at $300,000 or a Snorkle, a piece of fire fighting equipment, at $400,000," says vice-president Richard Duke.

Richard is the son of company cofounder G.C. Duke, who at 80 is still a vigorous force in the business and well known in the Canadian turf industry. The elder Duke started as a commissioned salesman (the garage behind his home was his office), worked that into a dealership and eventually a distributorship.

Gravely was the first manufacturer he represented. He later sold that business to Studebaker.

Company expanding

Today Duke Equipment represents dozens of different manufacturers.

The airport runway equipment is new for the Ontario-based company. It could be profitable. To reflect the addition of heavier equipment several years ago, the company name was changed from Duke Lawn Equipment. "The name was getting us into trouble with some of our bids," Richard Duke recalls.

Turf, however, remains the backbone of the company and accounts for about 80 percent of sales. Says Duke, a big man with a ruddy complexion and 25 years in the business, "Our strength really comes from the golf course and parks industries."

The growth of the business had employees pumping inventory and sales figures into a new IBM 36 computer at the Burlington headquarters from last December to mid-summer. An attractive, young keyboard operator complains with a smile, "If they wouldn't keep adding data, we would be done by now." Duke Equipment has outgrown the capabilities of two previous computer systems.

The company headquartered in Lake Ontario-hugging Burlington (a city of about 100,000 an easy drive up from Niagara Falls) maintains an office in Montreal, direct lines to nearby Toronto, and sells to all of eastern Canada with dealers extending to the Maritimes.

It's a mobile and and aggressive sales force that drives Duke Equipment.

Parked outside of Richard Duke's office window is muscular green ¾-ton pickup with sparkling chrome wheels, one of a fleet of 12 that cruises the long but narrow band of the Canadian turf industry. Geography defines Duke's territory. The 12 salesmen are divided between municipal and dealer/landscape accounts in Ontario and Quebec, concentrating on that 80-mile wide strip containing most of Canada's population.

Dick Raycroft, *seated, conducts on-site demonstration for an interested onlooker.*

Selling turf equipment in Canada poses special problems.

"All our salesmen are commissioned and pay their own expenses," Richard Duke says. "We supply the salesmen with the basic trucks and they fix them up with all the options." All 12 trucks are powered by propane, offering a substantial savings in transporation cost.

Two tractor-trailer "traveling billboards" complement the company's road show at field days and demonstrations.

Selling turf equipment in Canada poses special problems.

The American dollar (as of press time) is worth $1.38 Canadian, and most imported turf equipment is subject to duties of 11 percent plus a 10 percent federal sales tax.

Says Duke: "For mowers and equipment up here, the American list price is the dealer's cost. It's a problem, and it isn't. Everybody up here is faced with the same situation."

Marketers often say that selling to Canada is selling just 1/10th of what you'd move in the States. Not true, says Duke. Professional mowing takes on more significance than the so-called 10-to-1 ratio would suggest.

Reel mowing popular

Says Duke, "I think there's a lot more reel cutting done here in parks and by landscapers. Reel mowing takes a lot less horsepower per inch of cut, and the maintenance of reel mowers has come down dramatically in the last couple of years."

He adds, "One of the biggest changes we've seen is when reel mowers went hydraulic. We were one of the first to jump on hydraulic mowing." Duke Equipment is the largest distributor of Ransomes reel mowing equipment in North America.

The sophistication of the Canadian turf market is also reflected in the growing importance of such practices as clipping removal and fairway mowing as short as 3/8th an inch. "The golfer is becoming far more demanding, and industrial customers are displaying more pride. They're becoming better corporate citizens," Duke says. "There is something new coming all the time."

When it does, Duke equipment will be there.

"We expect our salesmen to have demonstration equipment with them at all times," says sales director Tanner. "If a manufacturer comes out with a new product, they'll take that too." **WT&T**

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You can count on Weather-matic quality because every valve is pressure-tested before leaving the factory. Valves are available in sizes to suit every application. Heavy cast bronze ¾" to 3" or high-strength, glass-filled nylon 1" to 2".

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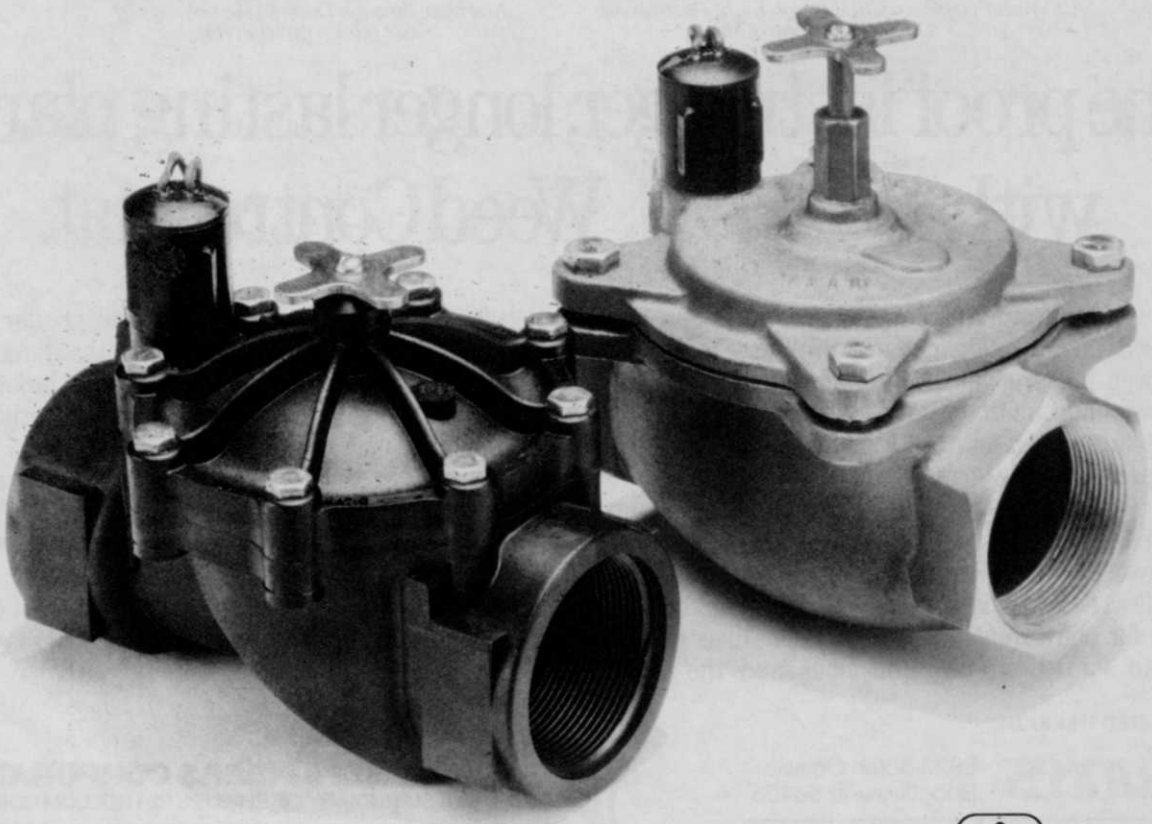

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LANDSCAPE MANAGEMENT

Growing in Florida

A second generation of leaders guide DeBra Turf & Industrial Equipment in the Sunshine State's expanding turf equipment market.

by Ron Hall, associate editor

Jud DeBra, tan and trim at 43, his dark hair graying, cranks up the big Chevy, snaps on cruise control and settles in for the 3½-hour drive south from Orlando. Destination: Hollywood, FL. Mission: to stay one step ahead of Florida's turfgrass industry.

DeBra the company official and DeBra Equipment the company are on the move. Hollywood is the busiest of three DeBra Turf & Industrial Equipment Company offices.

"We see things changing here in Florida," Jud DeBra says.

The V-8 bends coastward and miles of scrub pine and acres of grazing cattle give way to gleaming patches of white Florida sand—bulldozed sites of future residential developments and the businesses they spawn. South Florida creeps north. DeBra Equipment, the largest Jacobsen distributor in North America and guided by a second-generation of family members, will be pushing hard here soon with the addition of an office in Stuart, FL, just north of West Palm Beach.

New generation

Last May, Bill DeBra retired as president. He is one of the five brothers who founded the company. In 1946 he and brothers Don, George, Jack, and Jud, Sr., began selling Cushman scooters and three-wheel vehicles from Tampa and Atlanta, GA, dealerships.

"I guess there is no secret to the success of this business," Bill's son Tom says. "It was just good old hard work. They put their noses to the grindstone and got down to work."

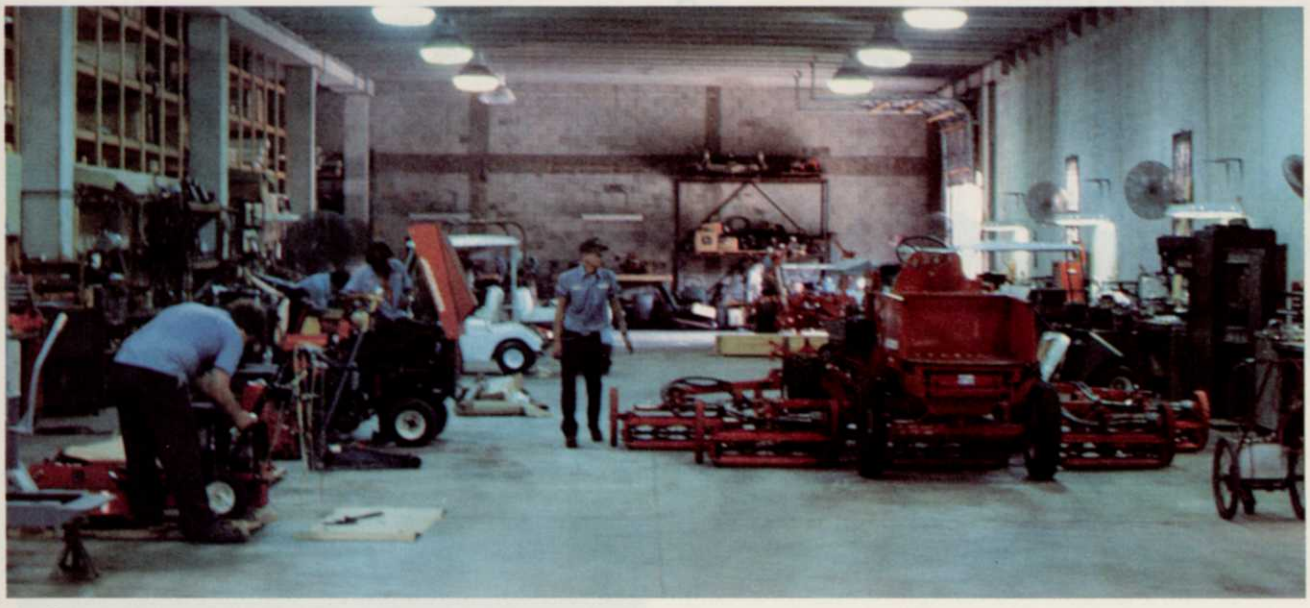
Dave DeBra (Jack's son) is DeBra Equipment's executive vice president. He and Tom direct the East Coast operation out of the Hollywood office. Jud (son of the late Jud, Sr.) is the corporate vice president and directs the West Coast offices of Fort Myers and Tampa. Dave has been with the business 20 years, Jud 17, and Tom, the youngest of the three cousins, four years.

This is the heart of a hard-working and visible management team that takes an active role in community and professional functions. Dave is past president of the Florida Turf-Grass Association.

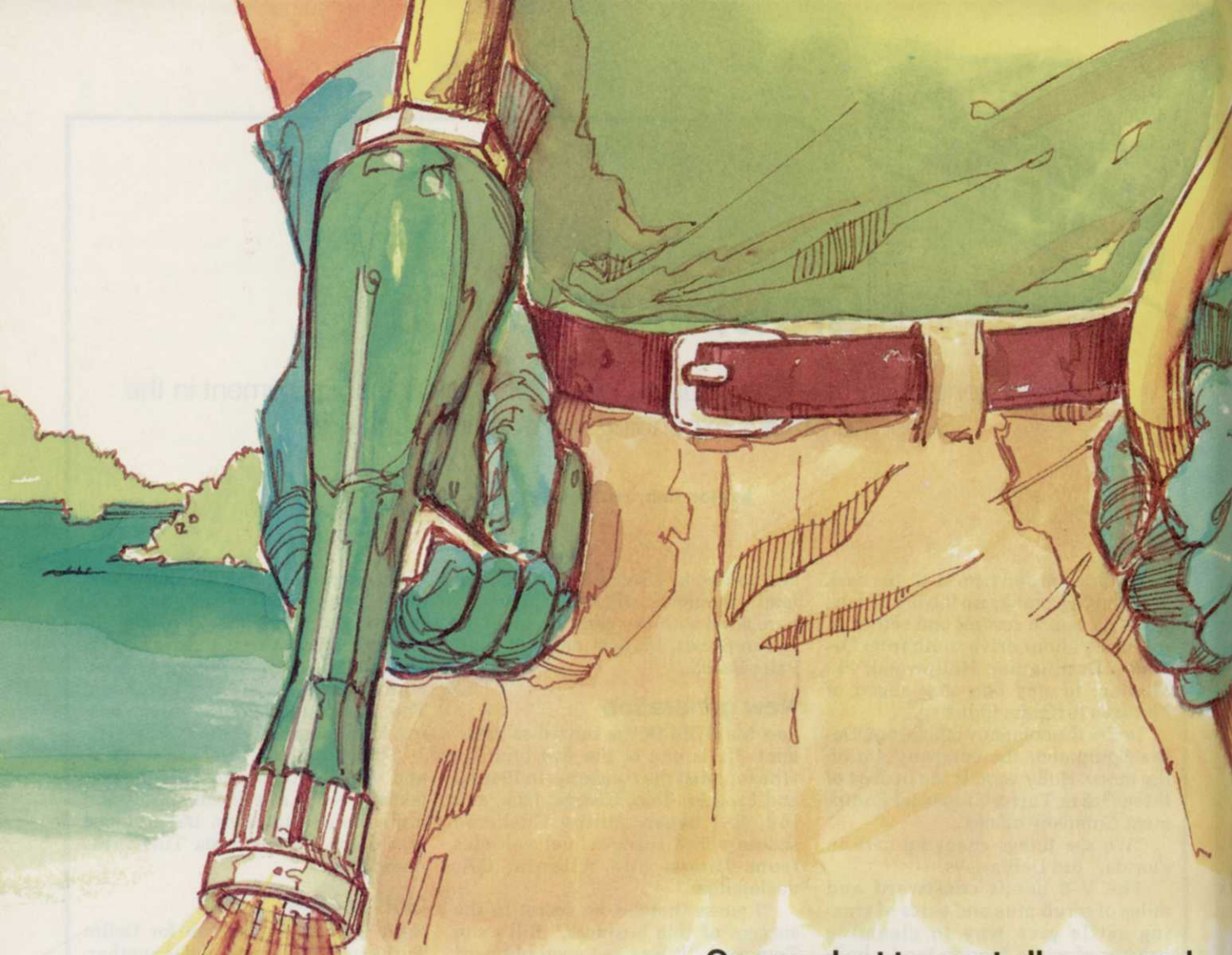
Golf is king

Hard work is one reason for DeBra Turf's success. Florida golf is another.

Says Jud, "Of the 100 new golf courses built in the country last year, 24 were built in Florida. People come to Florida to be near the water or to be near green. Waterfront property is



Employees service *equipment in DeBra's vast warehouse*



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Jud DeBra (sportcoat), Tom DeBra *with Jacobsen HF-15 reel mower.*

getting expensive and scarce, so a lot of Florida development centers around golf courses. Developers can pay for a new course with the sale of lots."

In 1956 the company entered the golf business by leasing golf carts (a service it still provides with the lease of 150 carts to Dade County). Not until 1960—when Jack DeBra moved to Hollywood, FL, just north of Miami—did it plunge into the commercial turf market as a distributor for Jacobsen. The introduction of a riding greensmower by Jacobsen in 1968 made things happen for DeBra—and for Florida golf course maintenance.

Or as Jud says: "The growth explosion hit."

Latest figures show 770 golf courses in the state. Play is measured at about 34 million rounds annually. A two-year-old study described Florida golf course maintenance as a $177 million industry with more than 6,000 employees.

Other directions

DeBra Equipment, however, found opportunities in other areas, including government accounts. Although company officials describe this as a "maturing" market, it remains profitable. More exciting is the contract maintenance market flamed by the spread of turfed and landscaped properties up the coasts and inland.

"The biggest growth will be in the landscape business," Jud DeBra adds. "And as the caliber of maintenance is pushed up in the big developments and nice resorts, it will influence the rest of the state about what is the norm and what is acceptable." That tranlates into the need for professional equipment.

DeBra Equipment, with 15 pickup-truck-equipped salesmen on the road, tries to anticipate these client needs. "Our involvement with residential developments and condominiums opens new markets for us. It's a natural extension of the services we can offer," says Jud. That attention led DeBra to offer industrial equipment also, including the Clark & American warehouse and factory sweeper and the Netherlands-manufacturered Ravo street sweeper. Industrial equipment has shown a 150% sales increase over the past two years, a company spokesman says. Even so, the company picks its markets carefully.

Service Manager Gary Foote, right, *helps mechanic Jack Moffat with a mower reel adjustment.*

"DeBra takes a conservative approach to growth," says Gary Foote, a Michigan State grad who began his turf career with DeBra, worked the Southeast for Jacobson, then returned to DeBra as parts and service manager. "DeBra doesn't take on lines just to be adding more equipment."

The Florida company, with sales expected to exceed $13 million this year, now represents more than 70 manufacturers (including Jacobsen, Excel, Smithco, Cushman, and Kubota in two locations). It backs its salesmen with 13 mechanics and a million-dollar parts inventory.

And its service schools are a model in the turf industry. Factory representatives from Jacobsen (which pioneered the idea of a service school) and other manufacturers visit DeBra Equipment offices on a regular basis to provide free hands-on training for client mechanics. Turnouts of 250 to 300 mechanics are common.

"We're working with the same customers over and over so what we do is build relationships with our customers rather than just making sales," Jud DeBra adds. "We know if we can build good customers, they'll be buying good products from us over a period of time." **WT&T**

LANDSCAPE MANAGEMENT

Ivy League player

Manager Phil Mowery put the Bunton Company back in the game in one of the nation's fastest-growing corporate centers—Princeton, NJ.

by Ron Hall, associate editor

The ivy-covered walls, the tree-lined streets hadn't changed much in college town. But when Phil Mowery drove 10 minutes north from his boyhood home in Princeton, NJ, five years ago he saw a whole new world of gleaming corporate headquarters and acres of manicured turf. He saw *opportunity*.

Mowery, 25 years in the lawn and garden industry, says he was "hungry." So he acted.

"It all started over a phone call"—*Mowery*

He contacted Stan Byers, president of The Bunton Company, a Louisville-based manufacturer of commercial mowers. *Presto.* Bunton's putting up the money and Mowery's managing a business, a turf equipment distributorship in the middle of corporate boomtown that is alternately being touted as "the New Jersey Sunbelt" and the "next Silicon Valley."

Neither term is entirely accurate. But how do you describe a gold rush for corporate office space in central Jersey, in what had been potato fields and sod farms? We'll talk about that later, but more about the distributor, Bunton Turf Products.

A phone call away

Says Mowery, "It all started over a phone call with Stan (Byers). He set us up. We started with four people and grew from that. We worked out of our homes."

The founders were Mowery, his daughter Penny (who later left the business to move to Washington, DC), Stan Stevenson, a hefty gregarious man with bearpaws for hands, and slender, dark-haired Dave Walter. Stevenson is Mowery's top sales rep now, Walter the company's parts and service manager.

Phil Mowery stands *in front of growing Bunton Turf Products.*

The distributorship now has 19 employees. It is located in a small rectangular masonry and glass building off narrow Quaker Bridge Road. Not in Princeton, but close enough for lunch.

Mowery's office is not a refuge. His door is open. Everybody—customers, mechanics, salesmen—poke their grins over his desk for greetings or guidance. The bespectacled Mowery, with the patient, polite demeanor of an accountant (he started his career as a clerk), is a good listener, and when he speaks he chooses his words carefully.

The first thing he wants to make clear is that Bunton Turf Products *is owned* by the Bunton Company.

New directions

For Bunton, it's a profitable departure and it's planning a second factory branch in South Florida. But, a manufacturer owning its own store isn't unknown in the turf industry.

continued on page 50

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IVY LEAGUE *from page 48*

Yazoo Manufacturing, the Jackson, MS, manufacturer of "Big Wheel" and front-cut riding mowers, controls its own distribution in Memphis, TN, Houston, TX, and Birmingham, AL. It has for more than 30 years. Howard Day, Yazoo's marketing vice president, says Yazoo factory branches sell as well as its independent distributors. Other manufacturers, however, have gone in the opposite direction.

Stan Stevenson *helped start company.*

The Toro Company sold its three final company-owned distributorships in 1978, the same year that Cushman/OMC Lincoln dealt its store, Cushman Motor Sales.

The Bunton Company's decision to bankroll the New Jersey operation, although bucking recent trends, is working. Says Mowery, "we've grown anywhere from 20 to 30 percent each year and it's still growing." Later this year the size of the company-owned store will be doubled. In addition to Bunton products, the distributorship handles Sarlo and Ryan mowers, Honda engines, and Lo-Blo leaf blowers. Additional lines will be added, Mowery says.

The distributorship, Bunton Turf, sells from the showroom and through dealers. "Believe it or not, that hasn't been a problem," Mowery says. "When we set up a dealer we tell them we also sell direct. Selling direct has been profitable, but we want to be known as a distributor."

Bunton Turf's four salesmen cover almost all of New Jersey, including parts of Pennsylvania and Long Island. One salesman sells the golf course and municipal markets exclusively. These markets are new to Mowery's business and he's optimistic. "They will fall into place. We know enough about it. We've stayed on top of it," he says.

Boom times

Mowery credits much of the New Jersey distributorship's success to Bunton Company president Byers. "The man has great forecasting ability and he's willing to take a gamble," Mowery says. "He could see the growth that was going to happen here."

Growth? How about explosion?

The epicenter is the Princeton Corridor, an 18-mile-long stretch of U.S. Route 1 from Princeton north to New Brunswick.

Within the past 10 years more than eight million square feet of office space (enough to almost fill the World Trade Center) grew up along this highway. The total should jump to 10.6 million (more than downtown Milwaukee) by 1992.

This corporate office explosion, touched off when Princeton University set aside 1,600 acres for its Forrestal Center "corporate campus" in 1975, erupted with the addition of other neighboring private developments: Carnegie Center, 744 acres; Princetonpark Corporate Center, 650 acres; and Princeton Corporate Center, 98 acres.

Corporate bosses appreciate Central Jersey's sylvan settings, its proximity to New York and Philadelphia, and the Princeton mailing address which they see as prestigious. *Image.* It's important down to the turfed and landscaped grounds of the corporate buildings.

The Forrestal Center contains 500 acres (nearly one-third of the Center) of permanent open space. Other developers, eager to attract tenants and to head-off cries that they're gobbling up prime real estate without consideration for the the pastoral countryside, are following suit. That's a lot of manicured grass.

"I've seen peaks and valleys," says Mowery, "but this is probably the longest good period I've seen—and it hasn't peaked yet. Not in this area anyway."

Bunton boss Byers, although not downplaying the area's growth, puts the success of the distributorship in more personal terms. "We knew we weren't getting the market penetration we should in this area, and the right guy (Mowery) came along. He runs it like he owns it."

Mowery responds, "I think Stan found some people who were hungry enough to make it work." **WT&T**

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LANDSCAPE MANAGEMENT

A Distributor and Much More

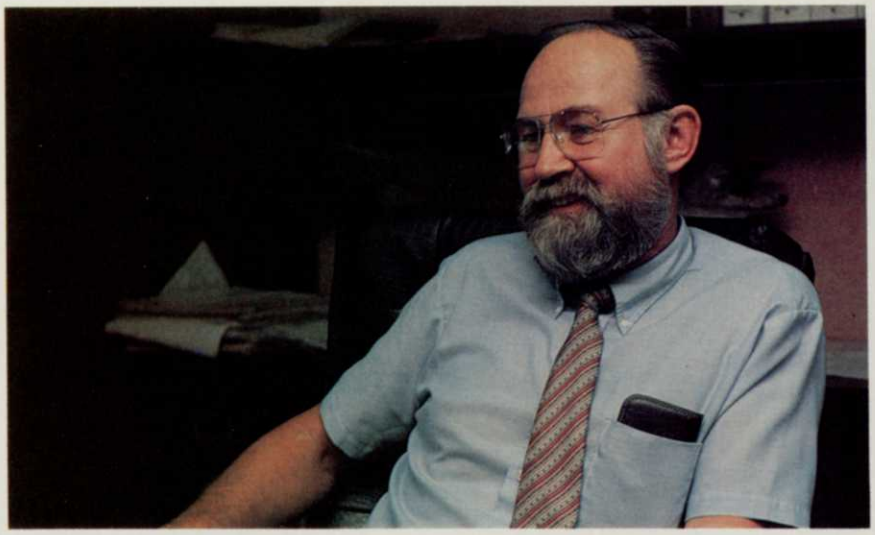
Reinders Brothers of Elm Grove, Wisconsin, has roots dating to the 1860s. More than 100 years later, the company's services are still expanding to meet the needs of its varied clientele.

by Ken Kuhajda, managing editor

When Bob Reinders talks about his business, he can't help smiling.

Yeah, he has the problems most turf equipment distributors have—customers with cash flow problems, problems with manufacturers, hot and cold sales and weather seasons. But company secretary Reinders, who operates Reinders Brothers Inc. of Elm Grove, WI, along with brother Richard (vice-president) and 80-year-old father Roland (president), takes the bad with the good. And the last 30 years have been mostly good for the Toro distributor.

The reasons? An ever-increasing list of services ranging from turf equipment and supplies to irrigation equipment and supplies, to consumer power equipment, to wild bird feed, to salt products, to retail garden supplies. Reinders Brothers, once Elm Grove's general merchandise store, continues as a sort of general supplier for those in the turf and irrigation business.



Bob Reinders *has seen his company grow from 20 employees when he started 30 years ago to today's total of 125. He's predicting continuous growth for the future.*

An aggressive company

Bob Reinders is an avid hunter and fisherman. His suburban Milwaukee office is lined with his conquests, including a tremendous muskie landed in a Wisconsin lake. A big man given to staccato speech and hand gestures, Reinders enjoys the public relations work involved in promoting a multi-million dollar operation. Far from pretentious—yet quick to point out his company's strength—he is quietly aggressive.

And so is his company. He and Ed Devinger, manager of the turf division, realize that the company's success ($11 million in sales in 1984) is due partly to that aggressive stance. Devinger, a friendly man with a booming voice, has been with the company since 1971. Before that he was a golf course superintendent in Iowa and then a five-year man in fertilizer sales. They agree that you can't relax and spend your time tallying profits if you want to make it.

"Yeah, we're aggressive," says Devinger. "You have to be to survive. It's survival of the fittest in this business." Adds Reinders: "I think our competitors would tell you that we're aggressive. We're hungry and I think we see some of our competition not being as hungry as they once were."

In the Reinders' turf division, six outside salesmen comb the eastern 2/3 of Wisconsin and Michigan's Upper Peninsula. They're young, experienced in turf, and more than order-takers. They want to *survive*.

"Our sales people have a genuine interest in the customer," says Devinger, lighting a Newport. "Sometimes it's awfully difficult to convey that to the customer. The point I always try to make to them is that there's no way that getting their business today is going to make us rich. We have to get it tomorrow, then the next day, and the next day."

Devinger doesn't get out on the road much but handles much of the inside turf sales.

"We've got to do what's right by you and if we can't come back with a smile on our face and on the customer's then we don't want the business. No one order is that important," says Devinger.

Complementing divisions

When sales orders in Reinders' turf division slow down, sales orders in

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the irrigation division increase.

This summer has been particularly dry in Wisconsin. "There's been a drought," says Devinger. "I mean there is no grass to cut. But the irrigation division is absolutely knee-deep in work. When it happens the other way—it's raining and the grass is growing—we're selling equipment and the irrigation division's phone isn't ringing. There's a great complement there," he adds.

"...we're aggressive...we're hungry and I think we see some of our competition not being as hungry as they once were." — Reinders

Reinders Brothers occupies 10 acres of land in the sleepy town of Elm Grove (population: 6,735), a 20-minute drive from downtown Milwaukee. Irrigation equipment occupies a good chunk of the land. There's room for expansion and if the irrigation division continues to grow, it will occupy even more space.

Bob Reinders doesn't mind. With brother Richard directing the division, irrigation has turned into big business for Reinders Brothers. The company, offering full lines of both Toro and Rain Bird irrigation equipment, covers the same territory with its irrigation division as it does with turf.

"We'll take a job from A to Z," says Reinders. "We consult with contractors for installation purposes, we'll design an irrigation system for a golf course or condominium or you name it. We'll do it for the contractor, we'll do it as a consultant, we'll general the job if it has to be—the big jobs that run a couple hundred thousand dollars."

Reinders also functions as a manufacturer within its irrigation division. They build pumping plants and wholesale to other distributors.

The Turf Conference

Yet another service Reinders provides the customer is its Turf Conference, held every other year in neighboring Waukesha. In 1985, over 1,400 attended the March conference. It's not a cheap undertaking—cash outlays totalled almost $20,000 this year excluding labor.

After all attendee and exhibitors' fees are collected, it still registers red figures. But Reinders will continue to sponsor the event, with its well-known speakers and top-of-the-line equipment displays.

It's a standing joke among Reinders employees that the show is a hassle because of the work involved, but Devinger and Reinders know the service it performs.

"We know it's worthwhile," says Devinger. "We realize it has definite benefits. It's a lot of work, but it's worth it."

Reinders Brothers also hosts a series of one-day educational seminars each year throughout Michigan and Wisconsin. This year's events, held July 29-Aug. 9, took place in rural areas like Escanaba, MI; Franklin, WI; Bristol, WI; and Beaver Dam, WI.

Stick Cities, yes, but Reinders aims at serving all his customers no matter where their locations.

Still growing

Bob Reinders has seen "continuous growth" in each of the 30 years he's been with the company. Sales figures topped the million dollar mark in 1969 and grew to $9 million 10 years later.

Today's annual sales figures of $11 million indicate the company has sprouted nicely from its roots as a grist mill run by Reinders' relatives in the 1860s.

Three expansions, the most recent just completed, have increased building space to 100,000 square feet. A good chunk of Elm Grove is occupied by Reinders Brothers. Reinders gives most of the credit for his success to his customers.

"We feel we get our business from the quality of the people out there. They know their equipment, their chemicals, they know their business," says Reinders. "They're sharp, they're educated. That's one of the reasons we're successful."

Reinders cites a steady service organization as a second reason for his company's success. And finally, the product.

"We have good products to sell. We think we have the best—be it Cushman, Ryan, Toro, or Rain Bird. Plus our allied lines are super. Any allied line that comes out we normally can get hold of," he says.

Adds Devinger: "We set the pace. The competition looks to us." **WT&T**

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Team Management

Knowing how to motivate your staff and letting employees know how they're performing is the cornerstone of efficient management.

by Rudd McGary and Ed Wandtke

In the August issue, we started to talk about team management and the requirements for good hiring and interviewing.

We can assume that you have hired wisely and now are starting to have problems with motivation and retention.

In a team management system, there are certain questions that every member of the team asks, and a good manager will be responsive to these in order to make the team work well with a high motivational level. The biggest question is always, "What's in it for me?"

Owners often announce that they are building a team workforce that is as motivated as they are personally, as if that will take care of all of the problems facing the company.

If you have employees that are part-time, paid minimum wage, and working on an unset schedule, you can announce that you have put together a team all you want—but it won't help to motivate employees. You must make a personal commitment.

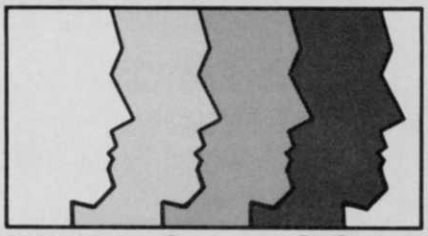
Ten commandments

Many psychologists have studied motivation of employees, and their research, coupled with our own, has led to the development of the following list of 10 rules for motivation that you can follow to build a team atmosphere in your company.

Wandtke and McGary are owners of All-Green Management Associates, Columbus, OH

PART 2

TEAM MANAGEMENT IN BUSINESS



■ 1. The manager has the responsibility for motivating the team.

The key to motivation is communication . . . feedback, both positive and critical, helps let a person know that they are appreciated.

Don't believe you can recruit "self-motivators" all the time. There aren't that many around. If you won't take the responsibility for performance of the team, why should the team members?

■ 2. What is motivational to you may not be motivational to the team members.

The "Golden Rule" works in a lot of situations, but don't think that team members are motivated by the same factors and rewards that you are. Many managers make this mistake and can't seem to figure out why the team is less than successful.

■ 3. Take care of basic needs first.

If the team members are making a low salary, they will worry more about that fact than they will about whether the company is successful. Talk to your employees: they will usually tell you what they need to be motivated. If you can do something about these needs, you will have a better chance of motivating the team. You will still have to manage effectively to do so.

■ 4. Money, or salary, is not a motivator.

If you think money is a motivator, ask yourself what would happen if you raised all the salaries 50 percent. Do you think you would get a 50 percent increase in output? Salary is something that we need to live on, not a motivational factor. Motivation comes from management, not money.

■ 5. The key to motivation is communication, specifically feedback.

If someone knows that their work is being watched and appreciated, it is likely that they will work harder than if they simply go about their job with no feedback from their manager. Feedback, both positive and critical, helps let a person know that they are appreciated. This is called recognition.

■ 6. Most people in organizational life could wear a large sign on their forehead asking, "How am I doing?"

Remember that feedback is neither positive nor negative. It is communication in both modes. Letting someone know how they are doing is a key to motivation.

■ 7. Set objectives that can be met.

This seems so simple that many managers forget it. Give every team

continued on page 58

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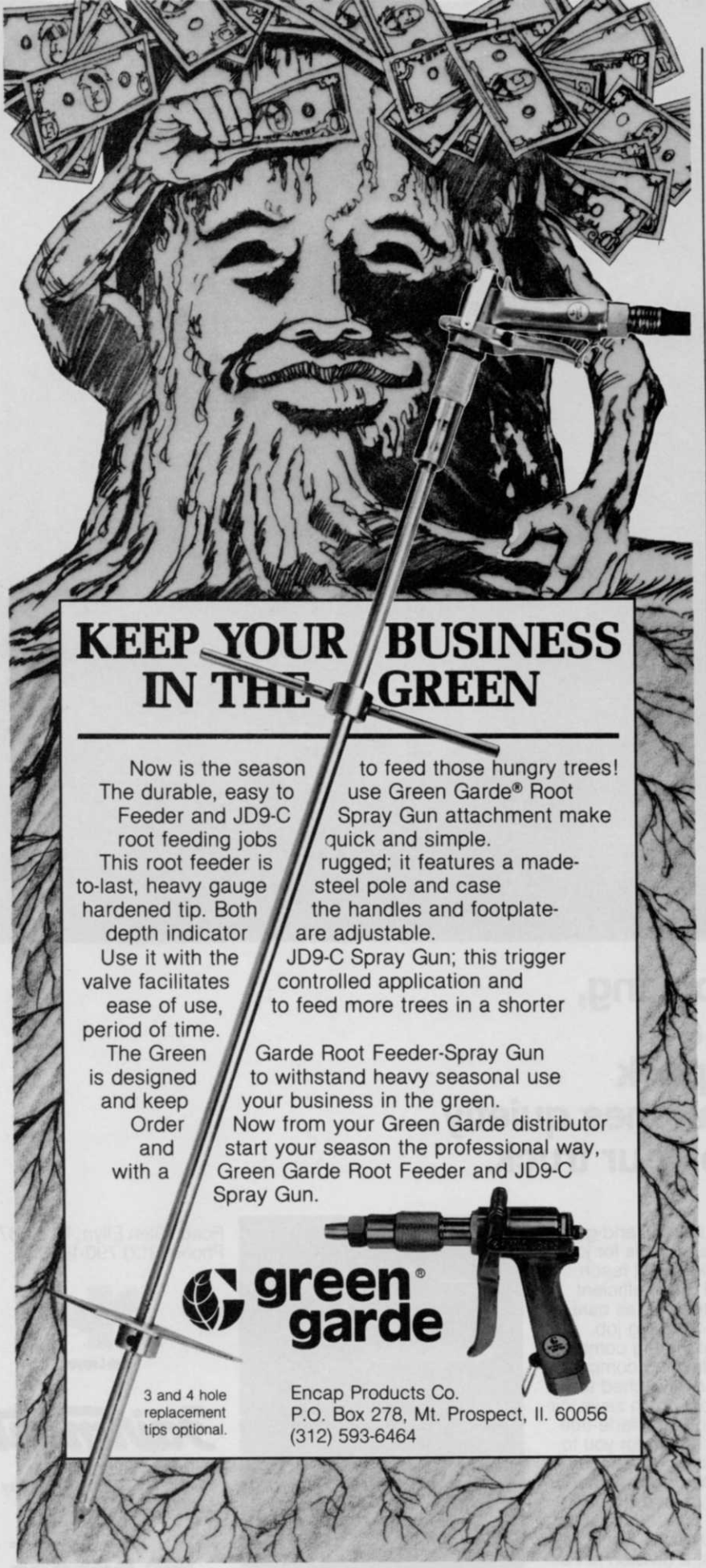

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TEAM *from page 50*

member an objective that he or she can reach. Simply telling them to "Be better!" or "Work smarter!" isn't managing, it's chanting slogans. If someone can achieve in your organization, they might want to stay.

■ **8. For many people, what they do to earn a living isn't what they do to establish their own personal image.**

The higher up in an organization a manager goes, the more the job becomes a part of his or her total outlook. For entry level people, this isn't necessarily true. Don't confuse your personal commitment to the organization with the motivation of an entry level worker. They aren't the same.

■ **9. If your employees can't see how the goals of the organization meet with their own, they aren't going to be motivated.**

The manager has the responsibility for motivating the team. Don't believe you can recruit "self-motivators" all the time.

By talking to your employees you can find out what they are trying to get by holding their job. Once you know the reasons that someone takes a job in your organization, you can be motivational.

■ **10. There is a big difference between motivation and inspiration.**

Motivation occurs over a period of time and is a mixture of both internal and external forces. Inspiration is temporary. It can be used under high stress to get a team to perform at maximum levels, but it is very tiresome to have a manager who constantly tries to be inspirational.

Motivation requires the manager to manage, not to yell things in a loud voice. That's why it's so tough to bring about.

Motivation is a very complicated human process.

We wish we could write down everything it takes to be a good motivator. Fortunately it's hard, and this separates the good from the average. The good managers will take the time to motivate properly and the average ones won't.

It's a choice that every manager has to make, to be good or to be average. How about you? **WT&T**

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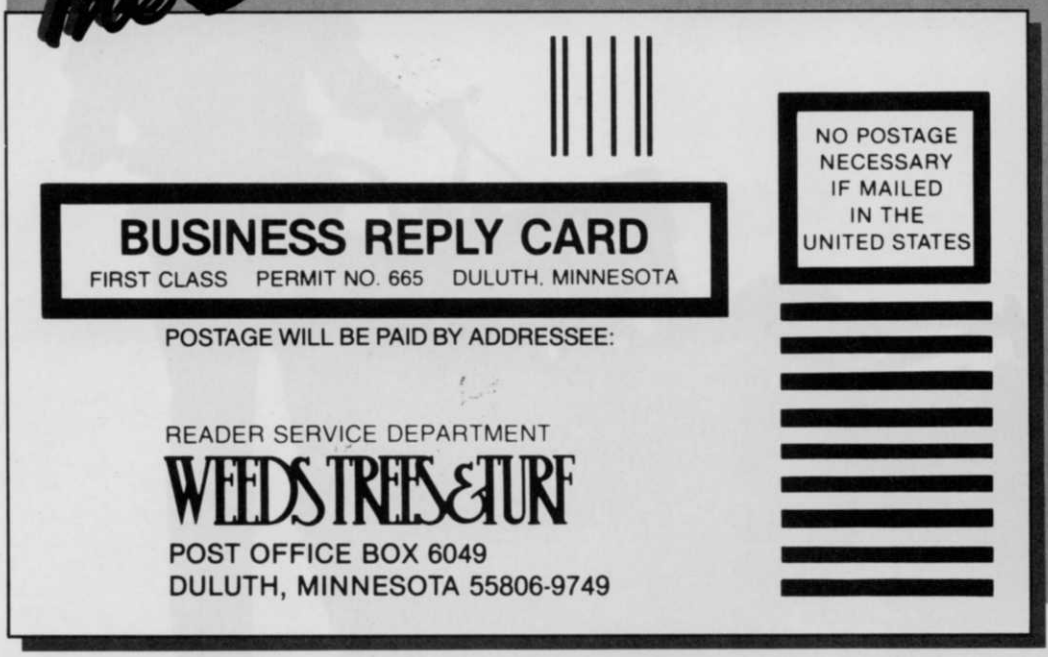

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A New Tool

Cloning and genetic recombination to tailor new cultivars to specific purposes.

by Douglas Chapman

Biotechnology, a tool for speeding up the process of evolutionary development, will have a significant impact on landscape horticulture. Biotechnology is the understanding and manipulation of biological systems to propagate new clones by genetic recombination or through selection.

One technique of propagation, specifically propagation of trees by cuttage, stimulates the introduction of regionally-oriented cultivars from superior trees, using current technology.

In selecting regional cultivars, a frequent concern is provenance, a photo-periodic response affecting vegetative growth, carbohydrate storage, abscission, dormancy, and overall winter hardiness. Further, when selecting cultivars, factors such as disease resistance, environmental tolerance, and/or unique phenotypic expression (habit, flower color, and/or fruit color) may be important. These new cultivars can result in designed or tailored trees for use in parks, street, home, or commercial landscapes.

TABLE 1. Trees Propogated by Softwood Cuttage

Species	Optimal Rooting Time
Acer buergerianum[11]	late June
A. campestre[5]	June - July
A. carpinifolium[12]	late June
A. ginnala[5]	mid June
A. griseum[10]	late June
A. palmatum[10]	June
A. platanoides[6]	mid June-mid July
A. rubrum[5]	mid June - mid July
A. saccharum[13]	June
A. saccharum subspecies Nigra[6]	mid June - mid July
A. tegmentosum[3]	July
Aesculus hippocastanum[6]	late May - mid June
Cornus florida[1]	mid June - July
Magnolia kobus[2]	June
M. X soulangiana[2]	June
Malus 'Donald Wyman'[7]	mid June - mid July
M. hupehensis[4]	mid May - June
M. 'Mary Potter'[6]	mid June - July
M. 'Profusion'[7]	late June - mid July
M. 'Red Jewel'[7]	mid June - mid July
M. sargentii[7]	late June
M. 'Selkirk'[4]	May - June
M. 'Snowdrift'[6]	mid June - July
Ostrya virginiana[7]	late June - mid July
Quorous palustris[6]	mid - late July

Literature Cited

1. Bauer, C. 1978. "Propogation of *Cornus florida* cuttings." Combined Proceedings of The International Plant Propagators' Society 28:360-363.
2. Bojarcuzuk, K. 1983. "Propogation of Green Magnolia Cuttings Using Various Rooting Stimulants." The Plant Propagator 29:1-3.
3. Brotzman, T.C. 1980. "Some Trials in the Propagation of *Acer* Species by Cuttings." Combined Proceedings of The International Plant Propagators' Society 30: 342-345.
4. Burd, S.M. and M. Dirr, 1977. "Propagation of Selected *Malus* Taxa from Softwood Cuttings." Combined Proceedings of The International Plant Propagators' Society 27:427-432.
5. Chapman, D.J. 1979. "Propagation of *Acer campestre, A. platanoides, A. rubrum,* and *A. ginnala* by cuttings." Combined Proceedings of The International Plant Propagators' Society 39:345-347.
6. Chapman, D.J. and S. Hoover. 1981. "Propagation of Shade Trees by Softwood Cuttings." Combined Proceedings of The International Plant Propagators' Society 31:507-511.
7. Chapman, D.J. and C. Martin. 1984. Unpublished results.
8. Flemer, W. III. 1980. "Linden Propagation—A Review." Combined Proceedings of The International Plant Propagators' Society 30:333-336.
9. Lewis, C.E. 1982. "Trees Introduced into Cultivation Before 1900." American Nurseryman 155:8:62-67.
10. Mezitt, E.V. 1979 & 1983. Personal communication.
11. Saul, G.H. and L. Zsuffa. 1978. "Vegetative Production of Elms by Green Cuttings." Combined Proceedings of The International Plant Propagators' Society 28:490-494.
12. Vertrees, J.C. 1978. "Notes on Propagation of Certain *Acers*." Combined Proceedings of The International Plant Propagators' Society 28:93-97.
13. Yawney, H.W. 1984. "How to Root and Overwinter Sugar Maple Cuttings." American Nurseryman 160:8:95-102.

Propagation of trees by softwood cuttage (see Table 1) has been proven successful for certain species or cultivars.

From the aforementioned list of trees that can be clonally propagated by cuttage from current season's wood, it becomes apparent that many crab apple cultivars, a significant number of maples and several native trees, (American hophornbeam and pin oak, for example) can be produced using this technique.

This propagation approach, which is successful 65 to 100 percent of the time, should lead to the stimulation of selection, development, introduction, and use of new cultivars. With many plants being propagated by cuttage (that is using parts of the plant and regenerating the missing portion), regional cultivars should be available in increasing numbers.

The advantages of propagation by cuttage include reduced suckering and elimination of incompatibility. Yet it allows the introduction of superior native trees that are tolerant to disease, low-oxygen soils, and chlorides.

This should lead to the increased availability of clones from native trees such as *Ostrya*, linden, pin oak, dogwood, and magnolia.

Further, hedge maple, Japanese maple, and sugar maples, exhibiting tolerance of low oxygen-high water tables, can be selected and introduced. Plants which are normally difficult to propagate, such as paperbark maple (*Acer griseum*), can be propagated by cuttage relatively easy and should stimulate their additional use.

Finally, many crab apples, such as "Mary Potter," "Profusion," "Red Jewel," "Snowdrift," "White Angel," and Sargentii, are a few proven cultivars or species that are disease resistant and can be propagated by cuttage. Propagation by cuttage should become one more biotechnological technique which should stimulate the introduction of superior shade or flowering trees. **WT&T**

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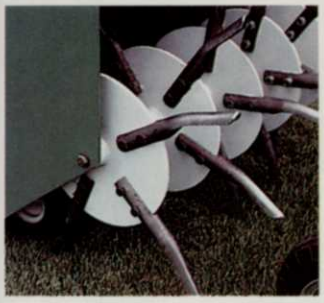

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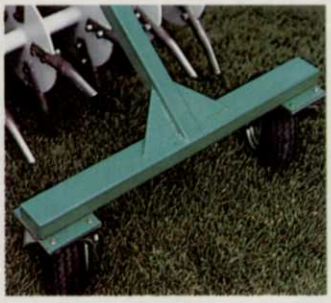

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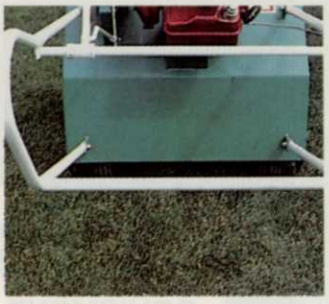

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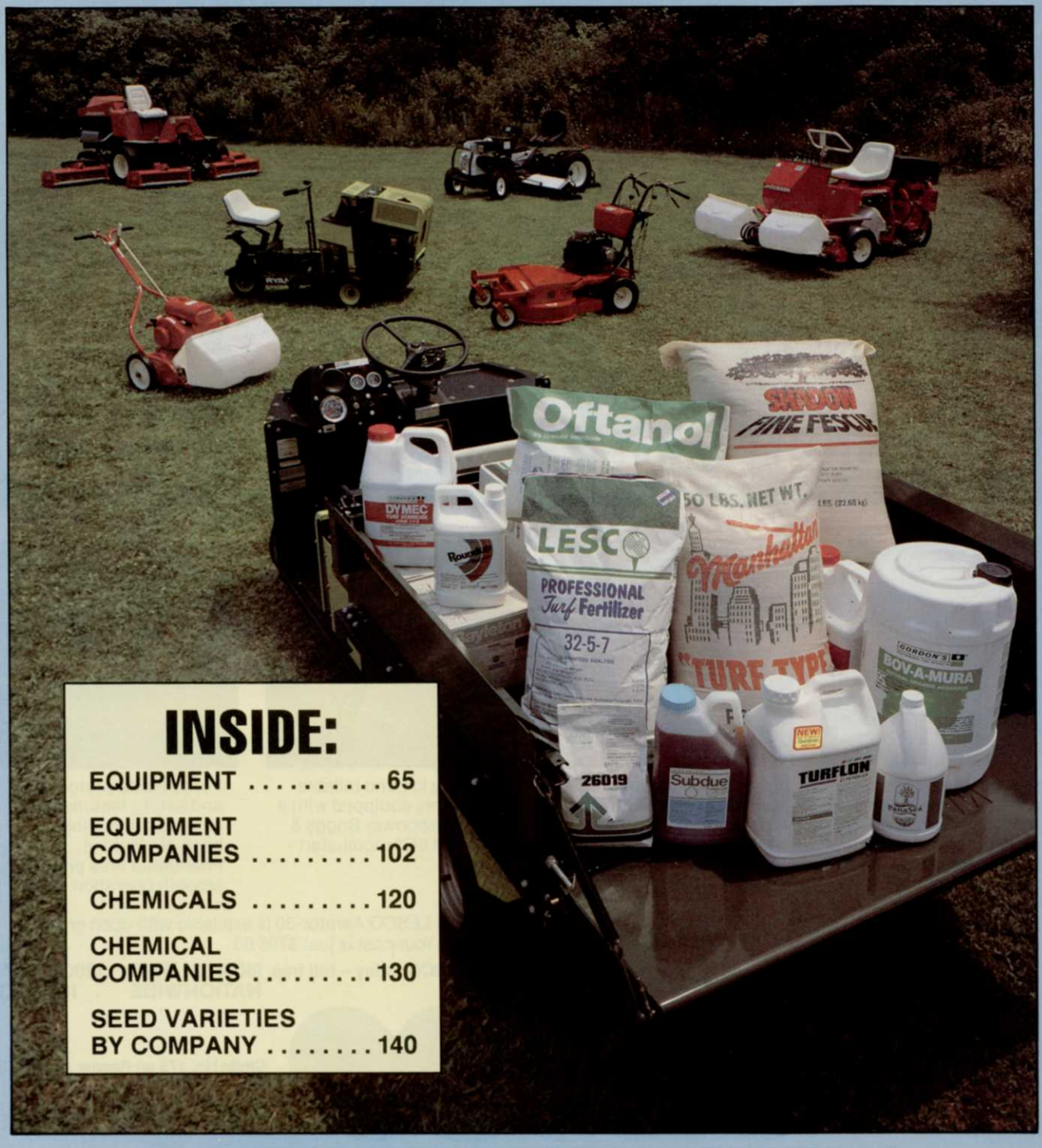

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Reach-All Mfg & Engineering Co
Western Wood Structures Inc

Brush Cutters, Hand Held

Allegheny International Hardware Group
American Standard Co
Ames Co
Bartlett Mfg Co
Beaird-Poulan/Weed Eater Div
Echo Inc
Homelite Div Textron Inc
International Reforestation Suppliers Inc
Karl Kuemmerling Inc
Lawnboy Prod Group
McCulloch Corp
H K Porter Inc
Poulan/Weed Eater
Seymour Mfg Co
Seymour Smith & Son Inc
Shindaiwa Inc
Solo Inc
Stihl Inc
Tanaka (USA) Co Ltd
Tecfor Inc
Vandermolen Corp
Wheel Horse Products Inc
Yazoo Mfg Co

Brush Cutters, Right-of-Way

Beaird-Poulan/Weed Eater Div
Roscoe Brown Corp
Bush Hog
HMC/The Green Machine
Royer Foundry & Machine Co
Tiger Corp
Timberjack Inc
Turner International Eng Ltd
United Farm Tools Inc
Vemco Corp of America
Woods Div Hesston Corp

Bucket Lifts

Arbortech/A Scott Fetzer Co
Guest Industries Inc
Hi-Ranger Inc
Pitman Div
Promark Products Inc
Reach-All Mfg & Engineering Co
Spyder Sales & Service Inc
Timberjack Inc
Winkler Hydraulics

Buildings

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Western Wood Structures Inc

Carts, Lawn

Central Quality Ind Inc

Chain Saws

AEG Power Tool Corp
Alpina North America
Beaird-Poulan/Weed Eater Div
Deere & Co
Echo Inc
Fairmont Hydraulics
Hinds Int'l Inc
HMC/The Green Machine
Homelite Div Textron Inc
Karl Kuemmerling Inc
McCulloch Corp
Poulan/Weed Eater
Shindaiwa Inc
Skil Corp
Solo Inc
Stanley Hydraulic Tools
Stihl Inc
Tanaka (USA) Co Ltd
Tecfor Inc
Wheel Horse Products Inc

Chain Saw Parts

Beaird-Poulan/Weed Eater Div
Buck Haven
Echo Inc
HMC/The Green Machine
Hoffco Inc
Karl Kuemmerling Inc
Poulan/Weed Eater
Power Lawnmower Parts Inc
Shindaiwa Inc
Skil Corp
Solo Inc
Stihl Inc
Tanaka (USA) Co Ltd
Tecfor Inc

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Promark Products Inc
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TECO Inc
Timberjack Inc
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Vermeer Mfg Co
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Winkler Hydraulics
Wood/Chuck Chipper Corp

Computer Programs

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Display Data Corp
Petro-Chem Computing

Computer Services

Ag-Share Computer Systems Inc
Petro-Chem Computing

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Auto Crane Co
J I Case Drott Div
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Master Craft Industrial Equipment Corp
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Bomford & Evershed Ltd
Brinly-Hardy Co
Bush Hog

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...for the 1985 Games!

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Turf-Type Fescue Blend

Triathalawn turf plot, 5 weeks after planting, Hubbard, OR.

This tall fescue *blend* brings you the best of all 3 varieties.

Triathalawn turf-type blend is the best tall fescue seed available. Olympic has earned a reputation as hard wearing, finer leafed, drought tolerant turf variety. With the inclusion of the new generation Apache and Bonanza cultivars, Triathalawn combines the best of the old and new. Triathalawn promises to be the sports, park and home turf of tomorrow. Make Triathalawn a part of your plans *today!*

Triathalawn blend qualifies for Turf-Seed's Blue tag program. Ask your distributor for details.

Triathalawn is produced and marketed by

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Solo Inc
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Wheel Horse Products Inc

Dethatchers

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BlueBird Int'l Inc
Brinly-Hardy Co
Brouwer Turf Equipment Ltd
Buck Haven
J I Case
Exmark Mfg Co
E-Z Rake Inc
Fuerst Brothers Inc
Glenmac Inc
Howard Rotovator Co
Jacobsen Div Textron Inc
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Kinco Mfg
Mathews Equipment Co
Middlesworth Mfg & Engineering Inc
Olathe Mfg Inc
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Parker Sweeper Co
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Ryan Turf/OMC Lincoln
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Turner International Eng Ltd
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Engineering Products Co
Industrial Leasing Corp
International Harvester Co
Little Giant Products Inc
Simplicity Mfg Inc
Wheel Horse Products Inc
Yanmar Tractor (USA) Inc

Drainage Tubing

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Dredgers

Mud Cat Div National Car Rental System Inc

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Hoffco Inc
Karl Kuemmerling Inc
Milwaukee Electric Tool Corp
Skil Corp
Stanley Hydraulic Tools
Tanaka (USA) Co Ltd
Timberjack Inc
Wheel Horse Products Inc

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John Blue Co
Buffalo Turbine Agricultural Equip Co
Encap Products Co
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Root-Lowell Corp
D B Smith & Co
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Stihl Inc
Trebor Corp
Universal-Gerwin
Vandermolen Corp

Edgers

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Ariens Co
Beaird-Poulan/Weed Eater Div
Bunton Co
Deere & Co
Goodall Div Bunton Co
HMC/The Green Machine
Hoffco Inc
Jacobsen Div Textron Inc
K-D Manitou Inc
MTD Products Inc
Patrician Products Inc
Patrician Products Inc
Poulan/Weed Eater
Stihl Inc
Tanaka (USA) Co Ltd
Turfco Mfg Inc
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Kohler Co
Lesco Inc
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Winkler Hydraulics
Yanmar Tractor (USA) Inc

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Deere & Co
Echo Inc
Goodall Div Bunton Co
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Kohler Co
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Encap Products Co
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Holly Filter
Hydroflo Corp
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Hardie Irrigation
Holly Filter
Laval Corp Claude
Thorco/Master Sprayers

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There is a simple way to be sure your commercial mower is designed for a long life, and is built to achieve it.

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to be sure your mowers have welded one-piece steel construction, lubrication points at each moving part, pneumatic puncture resistant tires and more.

Specify 2-cycle

for an engine that often provides 4 seasons of hard commercial use without major maintenance (2 season warranty), as much torque from an 8 hp as with an 11 hp 4-cycle, the piece of mind provided by taking the critical engine lubrication function out of the hands of your operators, and *a cost competitive with the most popular 4-cycle engines.*

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that puts your key equipment on the same fuel/oil mixture, with Bunton trimmers, backpack blowers and mowers.

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K-D Manitou Inc
Master Craft Industrial Equipment Corp
Melroe Co Div Clark Equipment
Princeton Mfg Co
Spyder Sales & Service Inc
Worksaver Inc

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American Honda Motor
Clinton Engines Corp
Deere & Co
Homelite Div Textron Inc
McCulloch Corp
Milwaukee Electric Tool Corp
MTD Products Inc
Safety Test & Equipment Co
Shindaiwa Inc
Skil Corp
Tanaka (USA) Co Ltd
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Trees Inc
Wheel Horse Products Inc
WINCO Div

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Melex USA Inc
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Melnor Industries
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Pex Inc
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Smithco Inc
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Thermoguard Co
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Richdel Inc
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Hydroflo Corp
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Lesco Inc
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Hancor Inc
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HOFFCO takes a stand!

To give you the best full line of gasoline powered portable outdoor equipment.

Twelve trimmer/cutters equipped with everything from brush and/or weed blades to mono-filament heads.

Each designed with HOFFCO QUALITY and RELIABILITY.

Dependable engines, long wearing clutches, sturdy transmissions and patented flexible drive shafts.

A 3-point suspension system (Guardian Triangle) on all bladed models for operator security and comfort.

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It works with you and for you.

Always First
Always Outlasts
36 Years . . .
Est.
1949

takes a stand!

HOFFCO is the only name you need to remember for a full line of trimmer/cutters and blowers!

Brush, weeds or grass to clear-up or clean-up whatever the job application . . . it's HOFFCO. So stand up, be counted . . . for more sales, more profits, more customer traffic.

HOFFCO

See your nearest HOFFCO distributor or write:

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Carl Heald Inc
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Lindig Mfg Corp
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MTD Products Inc
Poulan/Weed Eater
Promark Products Inc
Robush Engineering Co
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Wheel Horse Products Inc
Winkler Hydraulics
Yanmar Tractor (USA) Inc

Markers, Field

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Safety Test & Equipment Co
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Friend Mfg Corp
HMC/The Green Machine
Karl Kuemmerling Inc
Root-Lowell Corp
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Hydro Terra Corp
Karl Kuemmerling Inc
Soilmoisture Equipment Corp

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Mower Parts

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MTD Products Inc
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Ransomes Inc
Sensation Power Equipment
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Vrisimo Mfg Co
Yazoo Mfg Co

Mowers, Flail

Alamo Group
Bingham Equipment Co
Bomford & Evershed Ltd
Bush Hog
Deere & Co
Dynamic Industries Inc
Edwards Equipment Co
Ford Tractor Operations
Gravely
Haban Mfg Co
International Harvester Co
Jacobsen Div Textron Inc
Mathews Equipment Co
Middlesworth Mfg & Engineering Inc
MoTrim Inc
Mott Corp
Tiger Corp
Toro Co/Commercial Prods Div
Turner International Eng Ltd
United Farm Tools Inc
Vemco Corp of America
Vrisimo Mfg Co
Yanmar Tractor (USA) Inc

Mowers, Reel

Brouwer Turf Equipment Ltd
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Jerry Clipper
Lesco Inc
Locke Mfg Inc
MTD Products Inc
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Princeton Mfg Co
Ransomes Inc
Roseman Mower Corp
Toro Co/Commercial Prods Div
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Wheel Horse Products Inc

Mowers, Rotary

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J I Case
Deere & Co
Edwards Equipment Co
Engineering Products Co
Excel Industries Inc
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Ford Tractor Operations
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Goodall Div Bunton Co
Grasshopper Co
Gravely
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Heckendorn Mfg Co
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Ingersoll Equipment Co
International Harvester Co
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Kut-Kwick Corp
Lawnboy Prod Group
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Magic Circle Corp
Massey-Ferguson
Middlesworth Mfg & Engineering Inc
MoTrim Inc
MTD Products Inc
Nunes Mfg
OMC Lincoln/Cushman-Ryan
Ransomes Inc
Ryan Turf/OMC Lincoln
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Scag Power Equipment Inc
Sensation Power Equipment
Simplicity Mfg Inc
Smithco Inc
Smithco Inc
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Solo Inc
Tiger Corp
Toro Co/Commercial Prods Div
Tradewinds Inc
Turner International Eng Ltd
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Vicon Farm Machinery Inc
Walker Mfg Co
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White Outdoor Products
Willsey-D Inc
Woods Div Hesston Corp
Yazoo Mfg Co

Mowers, Sickle Bar

Alamo Group
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Gravely
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don't just take our word...COMPARE

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THE NEW BROUWER GREENSMOWER . . . built to meet the challenge of the modern golf course. For a superb "tournament finish" on your greens trust the Brouwer Greensmower to deliver, cut after cut. Compare it to the competition and see that feature after feature it comes out ahead.

Features like: special hardened alloy steel bedknife and cast iron holder; bearing mounted gears in the traction and reel drives; gear engage from main drive on the reel clutch; 1/8 in. to 1-3/16 in. setting for height of cut; self pre-load taper roller bearings; transport sulky and many more.

A combination of built-in quality engineering features that no other greensmower can match and that guarantees your greens will be the envy of others who choose to miss the "finest cut" — CUT THE BROUWER WAY.

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85-54

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Kay Park Rec Corp
Miracle Recreation Equipment Co
Playworld Systems
Trojan Playground Equipment Mfg Co

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Deep Root Corp
Ellis Mfg Co
International Harvester Co
International Reforestation Suppliers Inc
Lesco Inc
Miracle Recreation Equipment Co
Parker Interior Plantscape
L J Rench & Co

Plants & Trees

Parker Interior Plantscape
L J Rench & Co

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Delmer F Harris Co
Landscape Structures Inc
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Playworld Systems

Plows, Sand Trap

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Toro Co/Commercial Prods Div

Pools, Decorative

L J Rench & Co

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Guest Industries Inc
McMillen Div
Rhino Sales Corp
Shaver Mfg Co
Worksaver Inc

Post Hole Diggers

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Bush Hog
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Ford Tractor Operations
Ground Hog Inc
Hoffco Inc
Kubota Tractor Corp
Karl Kuemmerling Inc
McMillen Div
Melroe Co Div Clark Equipment
Don Savage Co
Seymour Mfg Co
Shaver Mfg Co
Spyder Sales & Service Inc
Stihl Inc
Tanaka (USA) Co Ltd
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Worksaver Inc
Yanmar Tractor (USA) Inc

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FMC Corp
Friend Mfg Corp
Hypro Div Lear Siegler Inc
Irrometer Co
Minnesota Wanner Co
Pex Inc
Power Spray Technology Inc
Smithco Inc
Spraying Devices Inc
Strong Ent Inc
Thorco/Master Sprayers
Tuflex Mfg Co
Westheffer Co

Pruners, Hedge

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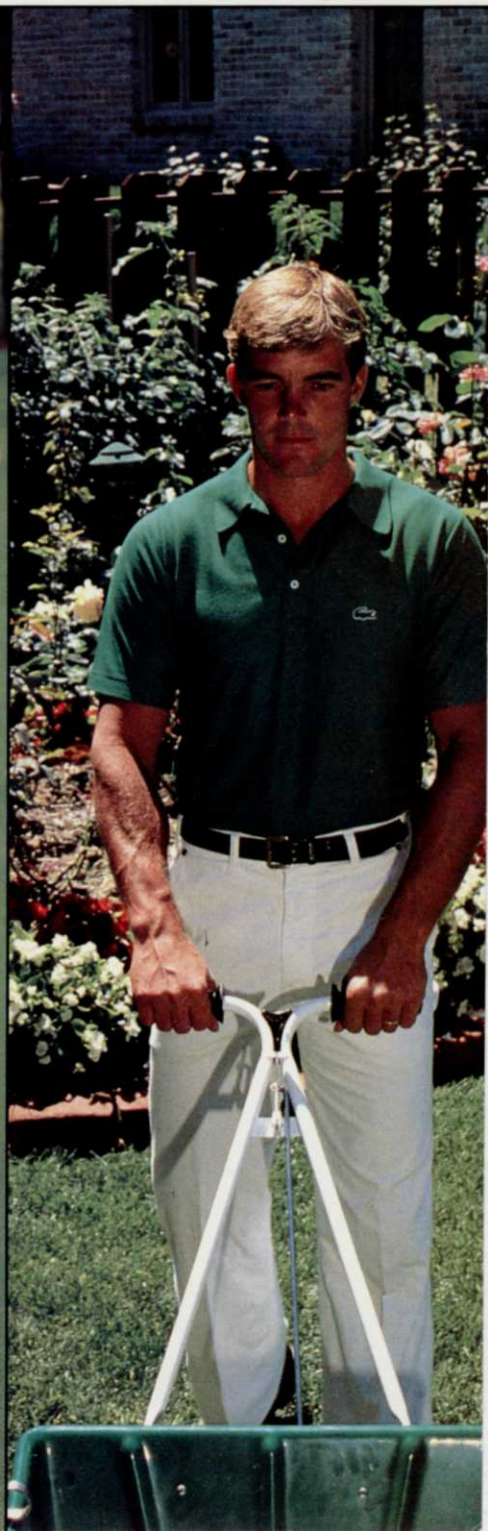
Ames Co
Arthur Enterprises Inc
Bartlett Mfg Co
Chisholm-Ryder Co
Corona Clipper Co
Echo Inc
Emblidge Corp
Fairmont Hydraulics
Fanno Saw Works
Friend Mfg Corp
Gilmour Mfg Co
HMC/The Green Machine
International Reforestation Suppliers Inc
Jameson Corp
Karl Kuemmerling Inc
Safety Test & Equipment Co
Seymour Smith & Son Inc
Stanley Hydraulic Tools
Vandermolen Corp
D J Wilson Co
Hermann A Wirth

Pruners, Tree

Allegheny International Hardware Group
American Standard Co
Ames Co
Arthur Enterprises Inc
Bartlett Mfg Co
Chisholm-Ryder Co
Corona Clipper Co
Echo Inc
Emblidge Corp
Fairmont Hydraulics
Fanno Saw Works
Friend Mfg Corp
Gilmour Mfg Co

A GUIDE TO LANDSCAPE MANAGEMENT



New Team prevents your weeds with all-season stamina. It's gentle on cool season turf grass, including bluegrass, ryegrass and other fairway grass species. And new Team pre-emergence herbicide consistently delivers better control, longer control for your crabgrass. It also provides head-to-head goosegrass control.

New Team spreads very easily. The clay carrier makes equipment calibration simpler and application more accurate. It also reduces dust problems.

Call time-out on crabgrass and goosegrass on your turf, for all season. With new Team.

Talk to your Elanco distributor soon.

Or write:

Elanco Products Company
A Division of Eli Lilly and Company
Dept. E-455, Indianapolis, IN 46285, U.S.A.

Team™—(benefin + trifluralin, Elanco Products Company)
Refer to the Team label for proper application instructions.

Put down new Team™ this spring.

Or put up with crabgrass and goosegrass this summer.

A GUIDE TO LANDSCAPE MANAGEMENT

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The science of landscape management today is more of planning ahead than reacting to problems. Products that prevent weed problems with predictable control have replaced emergencies. When curative products are required, the problem is often less serious when preventative measures were originally taken than if they were not. Advances in preventative products, such as preemergence herbicides, have improved the predictability of results landscape managers depend on. These advances include longer length of control, control of a wider range of target pests or weeds, and products designed to fit the needs of various regions of the country depending on climactic conditions.

Preemergence herbicides and combinations of preemergence herbicides with fertilizers and other compounds provide labor savings and more precise control, allowing landscape managers to more fully utilize their time and resource allocations.

With this new technology, the landscape manager must establish new standards by which to compare products. Cost per package is no longer a sufficient comparison. Lower rates per acre, longer length of control, broader spectrum of control, and greater effectiveness and residual must be figured into the equation.

New compounds are more effective in smaller quantities, reflecting a concern for the environment and resulting in significant savings to the landscape manager in storage, shipping and application. These compounds provide the landscape manager and golf course superintendent with products that fit their management needs. They are also more controllable and dependable, and help satisfy the public's concerns regarding the environment. These are the products of the future.

Jerry Roche
Editor

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Weed prevention in cool-season grasses

Each year, unwanted grass and broadleaf weeds are a multimillion dollar problem. They rob beauty from lawns, golf courses and landscaped areas; steal water, nutrients and profits; and squander millions of dollars in labor as workers try to remove them.

But in weed control, an ounce of prevention truly is worth a pound of cure. That's why more and more professionals are using preemergence herbicide programs to control weed problems before they get started.

Turf management practices differ according to the turfgrass manager's needs. Length and spectrum of control are two of the most important variables turfgrass managers must decide upon when choosing a preemergence herbicide. For the turf manager who wants control of specific problem weeds such as crabgrass in the spring, or poa annua in the fall, the full season preemergence herbicide may not be necessary. Control of the target species is the concern. A herbicide that offers this control with a predictable length of residual control in the soil would be the best value to him and less costly than the full season control products. The predictable length of control also allows him to control the target weeds and still utilize cultural practices such as

'If you time it right, it'll work fine. Timing is the key.'

—Joe Norris
Jamestown, N.Y.

Moila Country Club, St. Joseph, Mo.

reseeding or overseeding without concerns for germination of the desirable grass seeds.

The eight- to ten-week control with a single application of *Balan*® offers excellent crabgrass and poa annua control with maximum overseeding safety. This predictable length of control offers the turf manager flexibility to utilize the cultural practices he needs to maintain the best growing environment.

Balan is available in a granular formulation from Elanco or sprayable formulations and fertilizer combinations from formulators. "I use *Balan* on all our tees, and we have 27 of them with 18 more opening soon," says Ed Benoit of Shadow Lake Country Club, Penfield, N.Y. "We're getting good results. I keep using the Elanco products, so they've got to be working. We have by far the most beautiful public course around, and Elanco products are helping to keep us beautiful."

On the other hand, some turf managers need a longer length of control. Golf course superintendents desiring crabgrass and goosegrass control, and lawn care operators who apply preemergence herbicides early in the season on their first rounds need a product with a longer residual. Cool season turf managers now have a product that fits this need in a new product from Elanco, called *Team*™. *Team* offers a longer residual with effective crabgrass and goosegrass control at an affordable price.

"I just started using *Team* this year, and it looks like it's doing a pretty good job," says Joe Norris of Jamestown Park Golf Course, Jamestown, N.Y. "If you time it right, it'll work fine. Timing is the key."

Team is now available on an easy-to-spread clay particle from Elanco. *Team* sprayable and *Team* in combination with granular fertilizers will be available in early 1986 through selected formulators.

Liquid-applied weed control on home lawns

Weed prevention in warm-season grasses

For years, southern turf managers have had to take products developed for northern turf and adapt them to their situation. Today, a number of products have been introduced specifically for warm-season turf maintenance.

The southern turf season is considerably longer than its northern counterpart. Management programs for both warm-season turf and winter overseeded turf are necessary. Preemergence herbicides, such as *Balan*, have long played an important role in both programs.

Southern turf managers typical apply preemergence herbicides in February or early March for crabgrass, barnyardgrass, and foxtail control. In June, they re-apply for goosegrass control. Finally, annual bluegrass is a threat from October through December.

In addition to length of control, preemergence herbicides vary in their effectiveness on target weeds. *Balan* has shown consistent effectiveness against crabgrass and poa annua.

'My fairways and tees are just as clean as can be.'

—Harold Neal
Tulsa, Okla.

"This is the fifth year we've used two applications of *Balan* a year," notes Harold Neal of Tulsa Country Club, Tulsa, Okla. "My fairways and tees are just as clean as can be. We don't use any postemergence products at all, we've had such good success with *Balan*. And, we've also been using *XL*™ on problem goosegrass areas and get great control."

To meet the need for highly effective crabgrass and goosegrass control with one application, Elanco recently introduced *XL*. *XL* offers a longer residual and allows turf managers to control crabgrass and goosegrass with only one application timed preemerge in the early spring.

Neal reports "great control" of problem goosegrass areas using *XL*, as does Bill Bird of The Greens Country Club, Oklahoma City, Okla.

"We have no weeds whatsoever," Bird says. "We used it last year under an experimental label, applying it around

Bay Hill Country Club, Orlando, Fla.

'We have no weeds whatsoever...we're clean so far.'

—Bill Bird
Oklahoma City, Okla.

April 1st. We had absolutely no poa annua in our fairways until almost the first of December. We were a little late this year—around April 10th—but we're clean so far."

As in the North, the lawn care industry in the South needs a preemergence product that fits their treatment cycles. The longer residual and improved goosegrass control of *XL* gives lawn care companies improved weed control for their customers. An *XL* application in February yields effective control of both spring and summer weeds.

If a sprayable formulation is preferrable to a granular application, lawn care companies can use *Surflan*® flowable formulation (for bermudagrass only). *Surflan* can be applied in the spring for crabgrass and goosegrass control or in the fall for poa annua control. *Surflan* is available in quarts and gallons from Elanco.

Sea World, Orlando, Fla.

Controlling turf diseases

Preventative maintenance is not only an issue when dealing with annual grass and weed control. The same concept holds true when dealing with turf disease control. Preventative measures for dealing with diseases of the turf allow the turf manager to control the turf pathogens before they reach the visible symptom state, when control measures become more costly, not to mention the fact that the damage is already evident, unsightly and detrimental to the health of the overall stand of turf.

But preventative characteristics are not the only important aspect when choosing a turf fungicide. Spectrum of control is also an important issue. Does the fungicide control the major turf pathogens such as dollarspot and brown patch? Furthermore, does the fungicide remain effective throughout the vulnerable period of the turfgrass?

These are the primary concerns of both golf course superintendents and lawn care companies. If a fungicide meets these qualifications, the turf manager should use it. One such fungicide meets these qualifications and also helps manage the populations of annual bluegrasses, a problem weed in both cool-season turf and winter overseeded turf in the south.

'I can apply Rubigan closer to my overseeding dates and not affect the seedlings.'

—Jim Ellison
Orlando, Fla.

Rubigan® 50W is a locally systemic fungicide offering effective control of dollarspot, Fusarium blight, stripe smut, pink and gray snow mold, and is active on large brown patch—activity that can be enhanced with a Daconil 2787 tank-mix. In four years of field use, users report excellent control of dollarspot. For only 10 to 14 cents per 1,000 square feet per day of control, *Rubigan* offers economical control of dollarspot, even resistant dollarspot. *Rubigan's* multi-sites of inhibition also help reduce the worry of pathogens developing resistance to *Rubigan* treatments.

An extra benefit of *Rubigan* to cool-season turfgrass managers is the gradual reduction of poa annua, reduction that

Crooked Stick Country Club, Indianapolis, Ind.

'On most greens, we've had 100 percent control.'

—Stan Wreyford
Mansfield, Tex.

can only be achieved with cumulative rates of two to three ounces per 1,000 square feet and proper management practices. With *Rubigan*, turf managers can maintain disease-free poa or gradually reduce it. It's their choice.

Rubigan is safe on all commonly-grown turf species when used at recommended rates. Furthermore, application rates are considerably less than conventional fungicides, requiring less storage and handling.

In southern turf species, *Rubigan* provides fungicidal control and season-long elimination of annual bluegrass. No deactivation of *Rubigan* with activated charcoal is required before overseeding as is the case with preemergence herbicides, offering considerably greater seed germination safety.

Stan Wreyford of Walnut Creek Country Club in Mansfield, Tex., has nothing but compliments for the makers of *Rubigan*. "It does one fine job," he says. "We went in with *Rubigan* last year for the first time. Our overseeded greens had at least 50 percent poa annua. We've had at least 95 percent control, and on most of the greens it's 100 percent.

"We've had a lot of positive comments, mostly on the greens' appearance. The golfers are also saying that they're putting better now, too. Even though that's mostly psychological, if that's what they believe, they're the ones that count."

Rubigan's activity on poa annua in northern cool-season turf is also being realized by golf course superintendents. Joe Norris of Jamestown Park Golf

Course, Jamestown, N.Y., agrees. "I've never been loaded with poa annua, but *Rubigan* has gotten rid of what I had," he says. "It seems to be working real well. I plan to keep on using it."

And Jimmy Ellison of Bay Hill Country Club, Orlando, Fla. has special uses for *Rubigan*.

"It works well with our program because we're a golf resort," Ellison says. "I can break up the rates—a little bit now, a little bit later—and still get effective control on my greens. I can also apply it closer to my overseeding dates and not affect the seedlings."

Martin Marietta plant, Orlando, Fla.

Weed and disease control for ornamentals

The one single most important responsibility of the landscape manager is preserving the intended impact of the landscape design. Each plant has its place and purpose. Rising labor costs have made hand work previously necessary for proper design preservation and weed control impractical. The choice becomes one of fewer plant beds or replacing labor with preemergence ornamental herbicides.

Labor-saving tricks used by nurserymen for years are now spreading into landscape maintenance. Season-long control of grassy and broadleaf weeds in more than 150 species of ornamentals is possible with *Surflan* and *Treflan*®.

Surflan is a sprayable formulation that is safe to apply over the top of ornamentals. *Treflan* is a granular formulation offering the most economical control of annual grass and broadleaf weeds in ornamentals. Considerable labor savings result from the use of these pre-emergence herbicides in ornamentals.

"I use *Surflan* and *Treflan* in our flower beds," notes Joe Volk of Alliance Country Club, Alliance, Ohio. "We have no weeds in our beds, so I know that they're working. Their efficiency has saved us a lot of time and money."

Weed control may preserve the landscape design, but disease control preserves the sensitive plants sometimes used in landscape architecture. One of the most devastating diseases of ornamentals is powdery mildew. Dust wettable powder fungicide formulations are an unsightly solution to powdery

'We have no weeds in our beds, so I know Surflan and Treflan are working.'

—Joe Volk
Alliance, Ohio

Commercial landscape in a warm-weather locale

mildew control in that the cure is almost worse than the disease.

Locally systemic fungicides, such as *Rubigan EC*, are rapidly absorbed and utilized by ornamentals to prevent and control powdery mildew. *Rubigan's* long residual activity eliminates the need for weekly fungicide applications common with many fungicides. Without damage to ornamentals and roses by powdery mildew, they remain as beautiful as they are popular.

Wyndham Hotel, Orlando, Fla.

New ways to keep your landscape picture perfect

Aquatic weeds are not only unsightly, costly and upsetting to nature's balance, they have been extremely difficult to control—until *Sonar*®* came along. *Sonar* is a completely new kind of aquatic weed control product. It's the first one that controls hydrilla and other problem weeds without affecting water quality or wildlife.

Unlike previously available products, *Sonar* carries no label restrictions against fishing, swimming, or drinking treated water, which allows this herbicide to be used without interrupting water use. It has no detrimental effects on fish, game birds, insects or other organisms such as plankton, and it is not harmful to nearby trees and shrubs that are not growing in the water.

In lakes and reservoirs across the United States, *Sonar* has demonstrated its effectiveness on a variety of aquatic weeds while, with proper application design, often leaving desirable populations of native plants. One application has lasted from one to two years, showing *Sonar* to be an economical method of long-lasting weed control.

In an extensive evaluation program under an experimental use permit, *Sonar* has reduced hydrilla despite an increasing infestation of this plant elsewhere. In Florida, *Sonar* has been proven in testing to be extremely effective on hydrilla. One treatment with this product removed hydrilla from areas which had been choked with this persistent weed for more than five years.

Before-and-after photos of what Sonar can do for lakes and ponds

Even with its wide spectrum, *Sonar* can be used selectively, removing unwanted exotic plant species while leaving desired populations of native species, depending on timing, rate of application, and other management factors.

Besides hydrilla, *Sonar* controls a wide range of submersed and emersed plants and shoreline grasses. This includes members of the families of watermilfoil, pondweed, duckweed, waterlily, paragrass and reed canary grass. *Sonar* does not control algae.

Sonar works by causing a bleaching or chlorosis at the terminal bud or growing points of the plants. With growth checked by *Sonar*, the target plants slowly deteriorate without any shock to the water environment.

Sonar is available in both liquid and pellet forms to fit any available application equipment. Because of its concentrated formulation, applicators report they can treat large areas quickly, covering 100 acres or more per day with an airboat, even more with aerial application.

*EPA registration of *Sonar* is pending. Check with your Elanco representative to determine when *Sonar* becomes registered for sale and use in the U.S.

Rubigan is the best value for dollar spot, and it effectively controls fusarium blight, snow mold, stripe smut and is active on large brown patch when used with a Daconil 2787® tank mix.

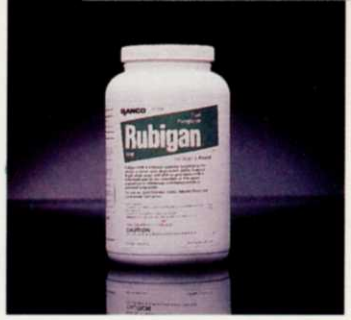
Four years of field use show excellent control of dollar spot—even resistant dollar spot, at only 10-14 cents per 1,000 square feet per day of control.

For gradual reduction of *Poa annua* use cumulative rates of 2-3 oz./1,000 square feet and proper management practices. With Rubigan, you can maintain disease-free *Poa* or gradually reduce it.

For more information, call your distributor or write:

Elanco Products Company
A Division of Eli Lilly and Company
Dept. E-455, Indianapolis, IN 46285, U.S.A.

Rubigan®—(fenarimol, Elanco Products Company)
Daconil 2787®—(chlorothalonil, SDS Biotech Corporation)



Rubigan® controls dollar spot on greens, tees and fairways.

And you get more for your dollar.

Large Brown Patch

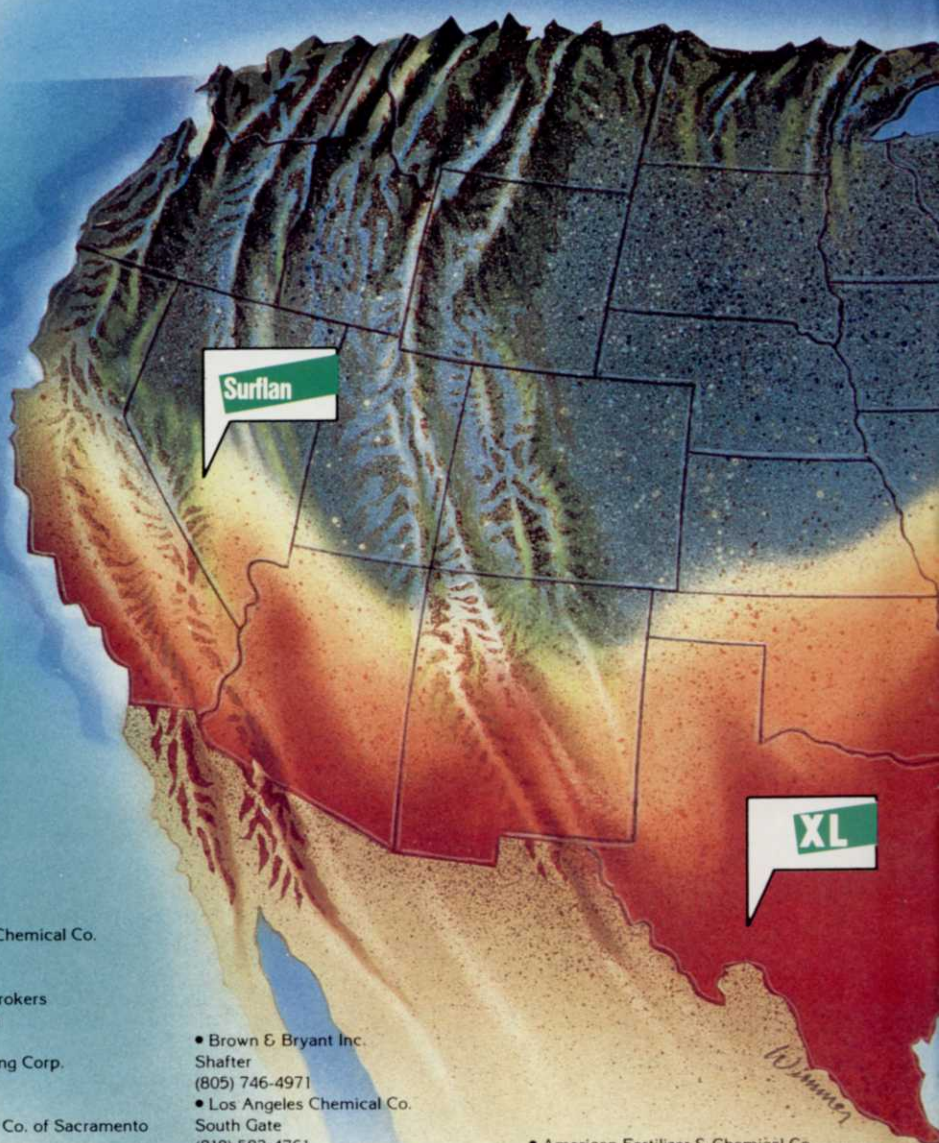
Dollar Spot

Stripe Smut

Snow Mold

Fusarium Blight

ELANCO COVERS



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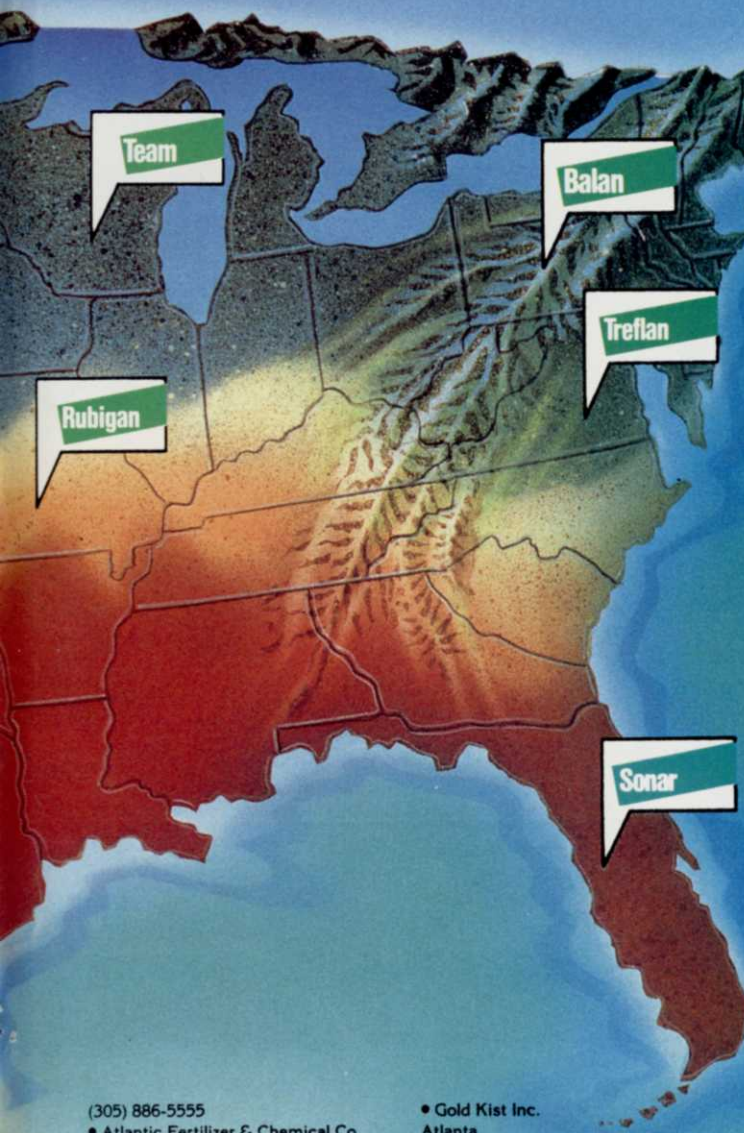
THE LANDSCAPE



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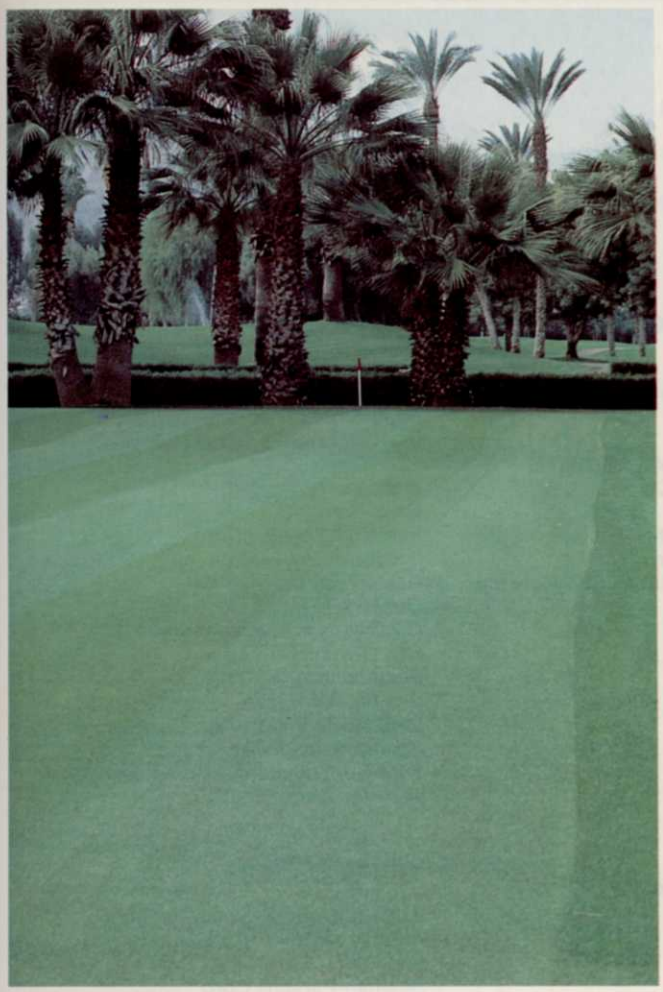

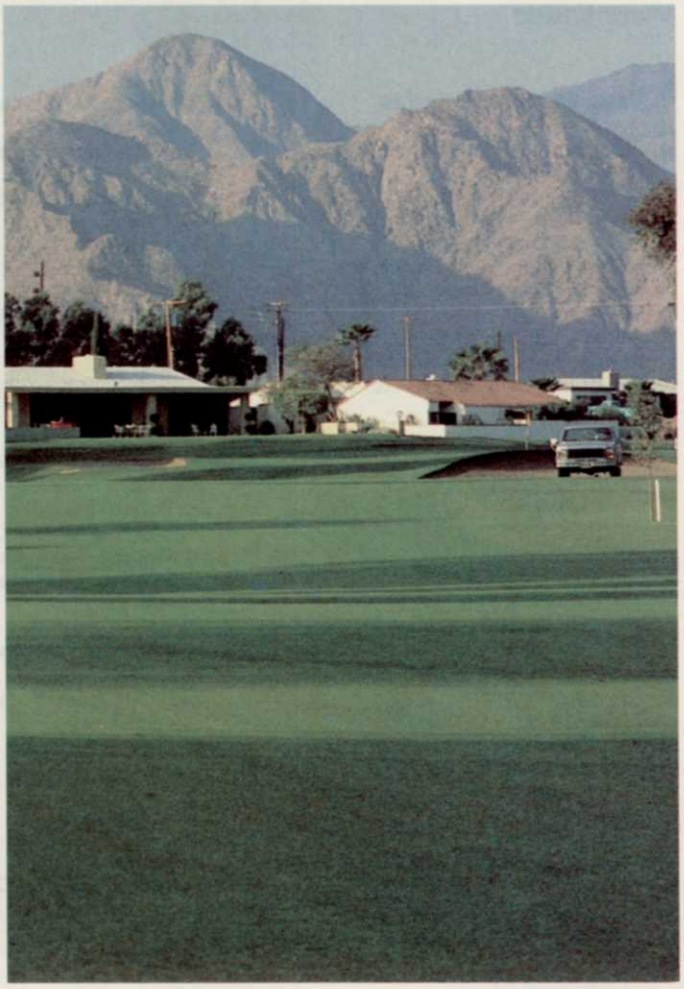

Otto Holt

Derby is the One Great Grass Found on Two Great Courses Of the Famed Bob Hope Classic

Harvey Hardin

Superintendents Otto Holt of Tamarisk and Harvey Hardin of Bermuda Dunes have pride at stake when the TV cameras roll at the opening of the Bob Hope Golf Classic.

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At both Bermuda Dunes and Tamarisk, Derby is sown wall-to-wall, tee-through-greens in the winter months when the native turf is dormant.

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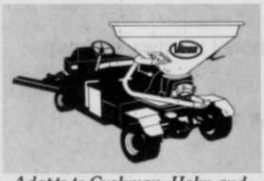

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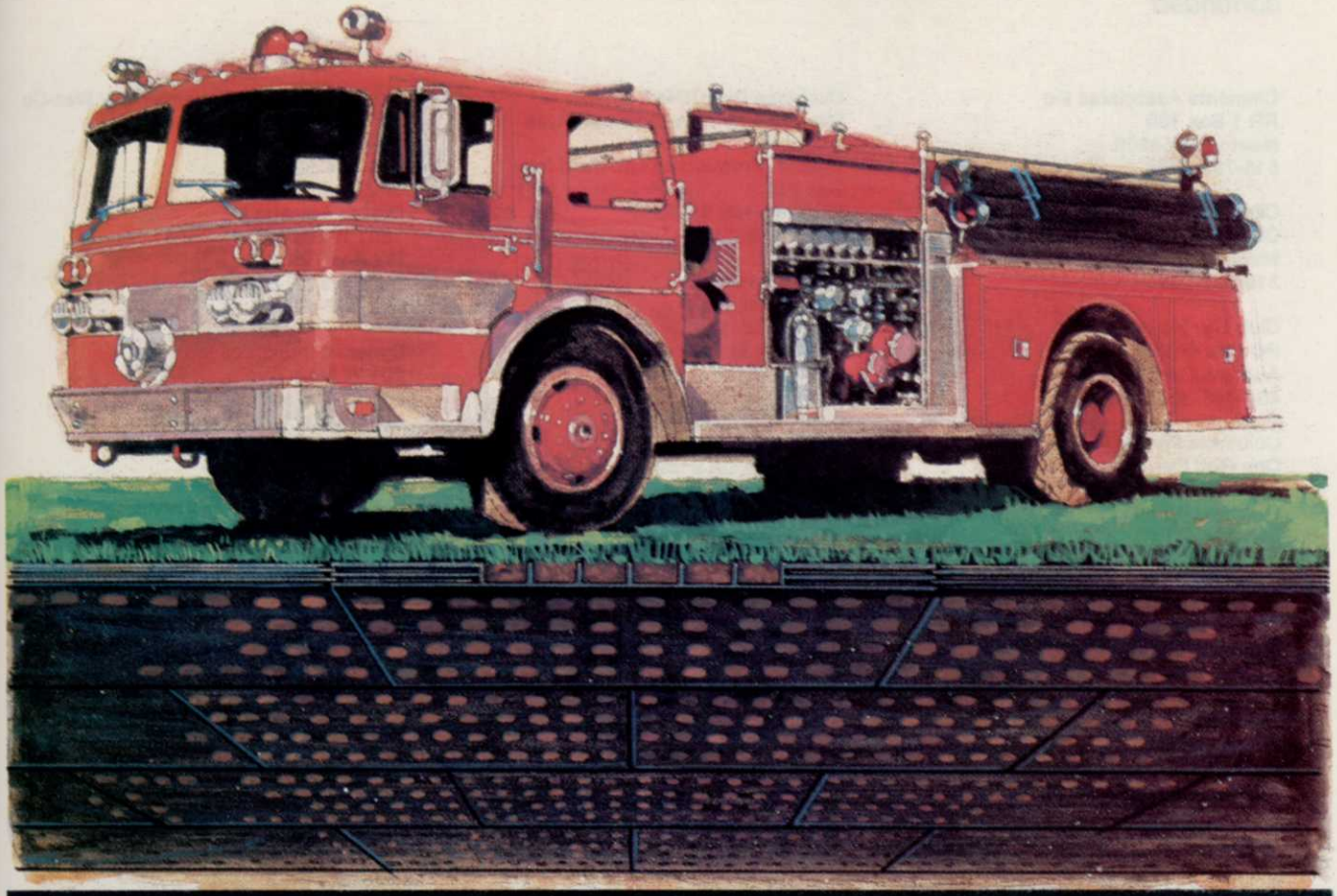

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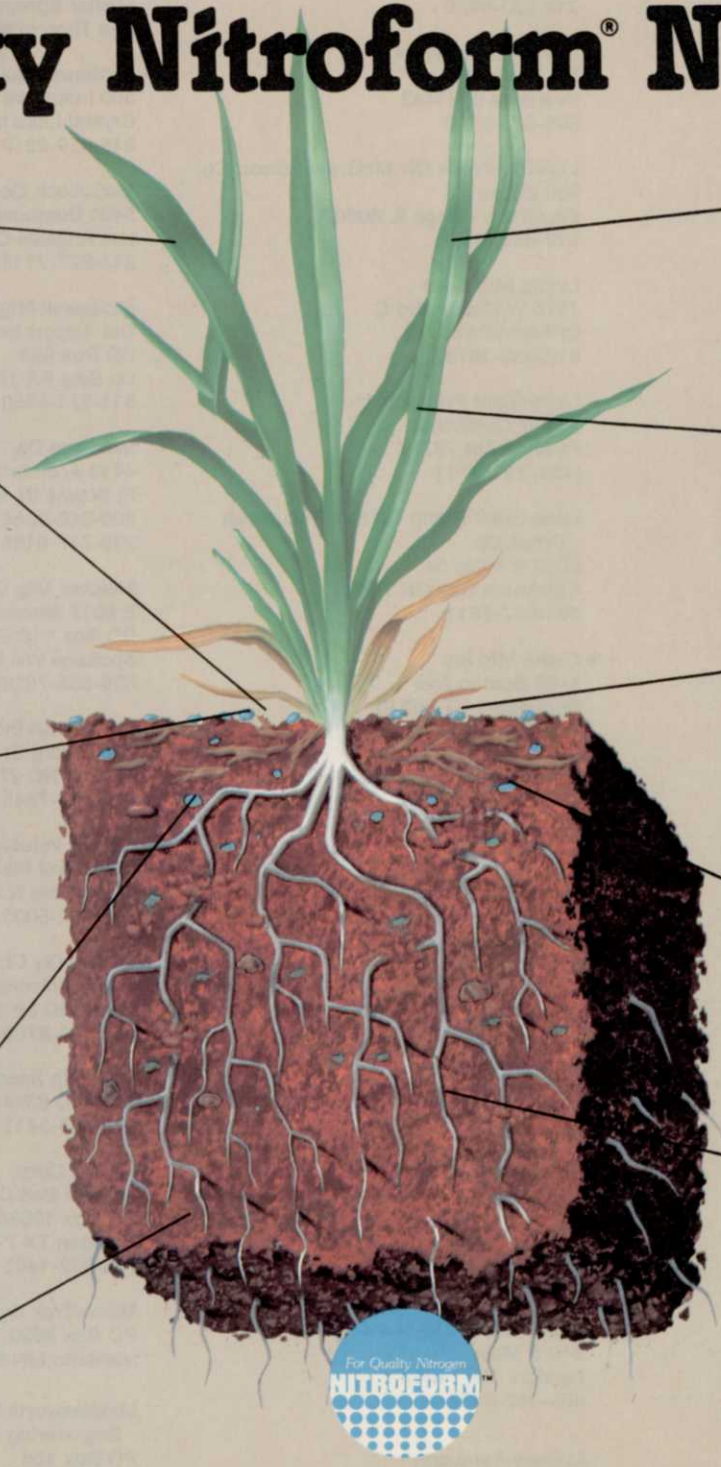

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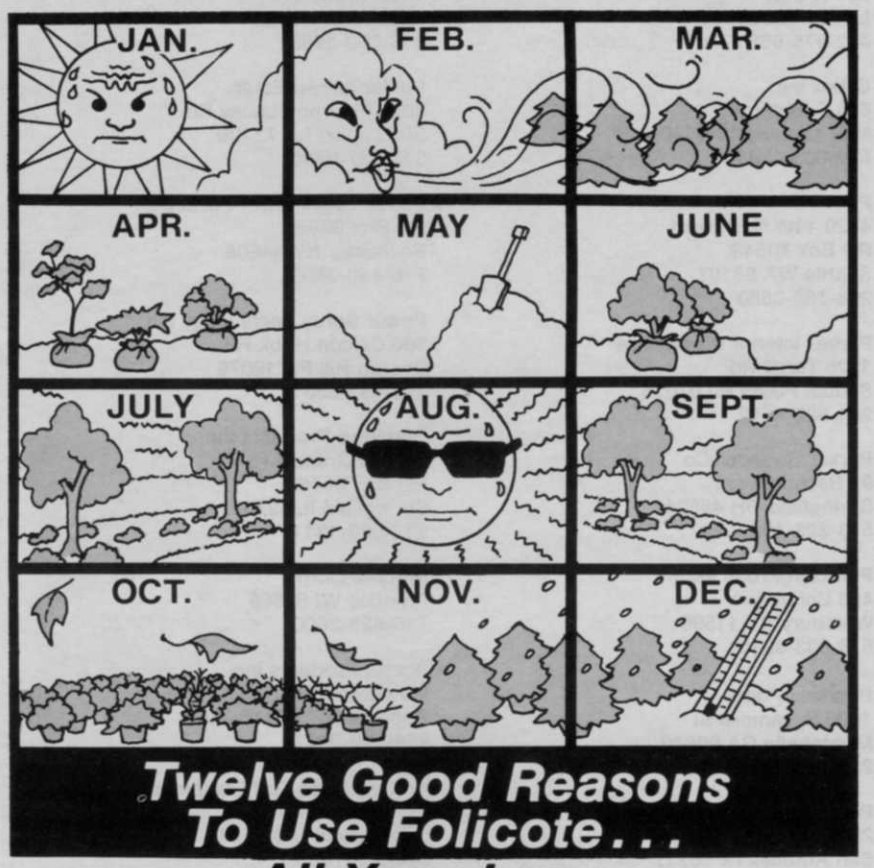

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Milldale CT
203-621-6747

Samson Cordage Works
245 Winter St
Waltham MA 02154
617-890-1406

Sarlo Power Mowers Inc
2315 Anderson Ave
Ft Myers FL 33901
813-332-1955

Don Savage Co
39 E Main St
PO Box 375
Honeoye NY 14471
716-229-5121

★Scag Power Equipment
W226 N900 Eastmound Dr
Waukesha WI 53186
414-544-4090

Schutt's Equipment Co
450 Larchlea
Birmingham MI 48012
313-642-6555

Schodorf Truck Body & Eq Co
885 Harmon Ave
Columbus OH 43223
614-228-6793

★O M Scott & Sons Co ProTurf Div
14111 Scottslawn Rd
Marysville OH 43041
513-644-0011

Seaman-Parsons Corp
147 E Becher St
Milwaukee WI 53207
414-769-8900

Sea-Ranch
Rte 2 Box 604
Sheridan AR 72150
501-942-2515

★Sensation Power Equipment
Div Gilson Bros Co
PO Box 536
Plymouth WI 53073-0536
414-893-1011

Seymour Mfg Co
500 N Broadway
Seymour IN 47274
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Shaver Mfg Co
5727 NE 16
Des Moines IA 50313
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Shindaiwa Inc
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97140-or-
PO Box 1090, Tualatin OR 97062
503-692-3070

Sidefire Inc
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Bay City MI 48706
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Skil Corp
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Chadwicks NY 13319
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Smithco Inc
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805-498-6616

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Oakville CT 06779
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Omaha NE 68112
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SNS Motor Imports Inc
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Oxnard CA 93030
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805-963-9667

Solo Inc
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Newport News VA 23605
804-245-4228

Sorensen Sprayers Inc
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Worthington MN 56187
507-376-6230

Source Technology Biologicals Inc
2850 Metro Dr Ste 309
Bloomington MN 55420
612-854-9426

★ Advertiser. See Advertiser's Index

Sperry New Holland
500 Diller Ave
New Holland PA 17557
717-354-1777

Spraying Devices Inc
8333 Doe St
PO Box 3107
Visalia CA 93278
209-651-1306

Spraying Systems Co
North Ave at Schmale Rd
Wheaton IL 60188
312-665-5000

Spring City Electric Mfg Co
Hall & Main Sts
PO Drawer A
Spring City PA 19475
215-948-4000

Spyder Sales & Service Inc
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Sta-Green Plant Food Co
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205-245-5282

★Standard Golf Co
220 E Fourth St Box 68
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319-266-2638

Stanley Hydraulic Tools
3810 SE Naef Rd
Milwaukie OR 97222
503-659-5660

Steiner Corp
12657 Church Rd
PO Box 85
Orrville OH 44667
216-683-0055

Stihl Inc
536 Viking Dr
Virginia Beach VA 23452
804-486-8444

Strong Ent Inc
4240 SW 72 Ave
Miami FL 33155
800-228-0905

Strong Mfg Co
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Pine Bluff AR 71611
501-535-4753

Submatic Irrigation Systems
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806-747-9000

Sudbury Laboratory Inc
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Holliston MA 01746
617-429-7900

Swan Hose
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Sweepster Jenkins Equipment Co
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Dexter MI 48130
313-426-3961

Swenson Spreader Co
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Lindenwood IL 61049
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Bothell WA 98021
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Minneapolis MN 55440
612-540-1200

★Terracare Products Co
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Pardeeville WI 53954
608-429-3402

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See Alamo Group

Terrain Vehicles
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Addison IL 60101
312-953-8747

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714-591-4851

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El Monte CA 91733
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Tiger Corp
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Northport AL 35476
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Minneapolis MN 55420
612-887-8805

Toro Co Irrigation Div
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Riverside CA 92502
714-688-9221

Towmotor Corp
See Catepillar Lift Trucks

Trac N Combo
268 Lake Ave
Metuchen NJ 08840
201-494-3131

Tradewinds Inc
2339-41 Tacoma Ave South
Tacoma WA 98401
206-272-4887

Travelrain Power Sprinkler
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Beverly Hills CA 90211
213-276-3213; 213-276-8848

★Trebor Corp
4045-A Jonesboro Rd
Forest Park GA 30050
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417-358-8174

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216-261-3400

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612-251-3080

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North Miami FL 33181
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614-228-1791

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Vaughan's Seed Co
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Vemco Corp of America
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★Vermeer Mfg
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515-628-3141

★Vicon Farm Machinery Inc
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Wandell's Nursery Inc
Myra Station Rd
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★Warren's Turf Nursery Inc
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★Wheel Spray Corp
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414-646-8640

White Outdoor Products
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Oak Brook IL 60521

Willsey-D Inc
RR 1 Box 67A
Maple Hill KS 66507
913-663-2257

D J Wilson Co
2707 Churchill Dr
Huntsville AL 35801
205-881-6391

WINCO Div Dyna Technology Inc
7850 Metro Parkway
Minneapolis MN 55420-1985
612-853-8400

Winkler Hydraulics
9705 Enloe
South Elmonte CA 91733
818-443-6687

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Princeton FL 33032

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Hwy 150 East
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704-482-4356

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PO Box 1000
Oregon IL 61061
815-732-2141

Woodstream Corp
Front & Locust Sts
Lititz PA 17543
717-626-2125

Worksaver Inc
S State St Rd
Litchfield IL 62056
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Wylie Sprayers
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Hewitt TX 76643

Yanmar Tractor (USA) Inc
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Bensenville IL 60106
312-860-5370

Yard Vac Prods Inc
3849 E Ventura
Fresno CA 93702
209-251-7125

Yazoo Mfg Co
3650 Bay St
PO Box 4449
Jackson MS 39216
601-366-6421

York Modern Corp
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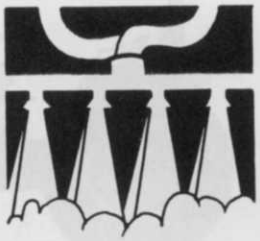
Unadilla NY 13849
607-369-7111

Young Industries
1033 Wright Ave
Mountain View CA 94043
415-968-8486



3. Chemicals

This section is broken down by chemical product with companies providing that chemical listed below. Products common name (in parentheses) and brand names are listed on the line following the company name.

Adjuvant/Carrier

Asplundh Tree Expert
(Phytobland Oil/Nonionic Surfactant)
Clean Cut, Clean Cut + Pine
BASF Wyandotte Corp
Citowett Plus
W A Cleary Corp
(Alkylphenolpolyoxyethylene) All Wet, Super Wet, Super Wet Granular
Drexel Chemical Co
(Petroleum Oils) Peptoil
Kalo Agricultural Chemicals
Bid-88
Nalco Chemical Co
Nalcotrol, Nalcotrol II, STA-PUT
PBI-Gordon Corp
(Petroleum oil-parafin base) Adjumec
Regal Chemical Co
(Non-ionic wetting agent) DiAqua
Rigo Co
Rigo Spreader/Sticker
SDS Biotech Corp
FRIGATE
Stull Chemical Co
(Encapsulating & Suspending Agent) Bivert
UAP Special Products
Activator 90, LI-700, Clean Crop X-77

Algaecide

Applied Biochemists Inc
(Copper Ethanolamine Complex) Cutrine-Plus, Cutrine-Plus Granular, Stocktrine II/Aquatrine
Aquashade Inc
(Dye Colorant) Aquashade
Clean-Flo Laboratories Inc
(Buffered Alum) Clean-Flo Lake Cleanser
Faesy & Besthoff Inc
Copper Sulphate
Great Lakes Biochemical Co
(Chelated Copper) Algimycin PLL-C + Algimycin PLL, Slow Release Algimycin PLL-C; (Simazine, Monuron, Arazine) Algimycin GLB-X
Lesco Inc
(Elemental Copper) Lescocide + Granular Algaecide, Liquid Algaecide
National Chemsearch
(Quat) D-Algae
Rohm & Haas Co
Hyamine

Antitranspirant

Aquatrols Corp of America
(refined Paraffin Wax Emulsion) Folicote
Bonide Chemical Co
(Acrylic Polymer Resins-Thiram) Bonide Rabbit and Deer repellent
W A Cleary Chemical Corp
(Acrylic/Methacrylic Acid) Clearspray
Encap Products Co
Wilt-Pruf
National Chemsearch
(Proprietary Blend) Weather Shield
PBI-Gordon Corp
Polyethylenes/Polyterpines) Transfilm
Wilt-Pruf Products Inc
(di-1-p-menthene) Wilt-Pruf

Bacteriocide

Merck & Co
(Streptomycin) AGRI-STREP

Colorant

Aquashade Inc
(Dye Colorant) Aquashade
Asplundh Tree Expert Co
(Oil Soluble blue) Basal Dye
Clean-Flo Laboratories Inc
Sky Blue Lake Dye
W A Cleary Chemical Corp
(Pigment) Greenzit, Super Greenzit
Lesco Inc
(Pigment) Lesco Green
Mallinckrodt Inc
Turf Colorant, Auragreen, Vitalon
Milliken Chemicals
Blazon
Regal Chemical Co
(Blue-green colorant for spray solutions) Dy'on
Rockland Chemical Co
(Polymers) Green-Top

Compatibility Agent

Hopkins Agricultural Chemical Co
Unite
Kalo Agricultural Chemicals
Compex

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Asplundh Tree Expert Co
(Silicon-based) Defoamer
W A Cleary Chemical Corp
(Silicon-based) Defoamer
Great Lakes Biochemical Co
(Silicone Emulsion) Foam Out
Hopkins Agricultural Chemical Co
Kalo Agricultural Chemicals
Lesco Inc
(Silicone) Lesco Defoamer
Montco Products Corp
(Silicone) Zap!
Nalco Chemical Co
Nalco 2151
Regal Chemical Co
(10% Silicone defoamer) Foam-X
Rigo Co
Rigo D-Fome
UAP Special Products
Fighter F

Drift Retardent

Asplundh Tree Expert Co
(Acrylic derivative) clean way, Drifgon
W A Cleary Chemical Corp
Drift Proof
Chevron Chemical Co
Orthothrol
Nepera Inc
(Polyacrylates) Viterra 800
Stull Chemical Co
(Encapsulating & Suspending Agent) Bivert
UAP Special Products
Chem Trol

Fertilizer, Tree

Adco Works
Eeesy Grow
Bonide Chemical Co
Bonide
C-I-L Inc
Sulfur Coated Urea
W A Cleary Chemical Corp
(Ureaformaldehyde) Fluf, Trugreen Micronutrient, Extra Iron Nutrient
Creative Sales Inc
(Fe, Mn, Zn, MD—12-4-4 comp. fert.) Medicap
Cumberland International Corp
(Zinc) Liquid Zinc Chelate
Ross Daniels Inc
(Salts) Ross
Davey Tree Expert Co
Davey-Arbor-Green
Doggett Corp
(NPK water soluble) XL Injecto Feed 32-7-7; (NPK water soluble poliar spray) XL Spray Fol 30-10-10; (NPK soluble, slow release, acid) XL Evergreen Special 30-7-10; (13% Chelated Iron EDTA) Ferro-late XL-Iron Chelate
Drexel Chemical Co
(Zinc, Manganese, Copper, Sulphur) Gen-Che
Estech Inc
(IBDU and Meister) Woodace Topdress Special; (IBDU) Woodace Briquettes
Faesy & Besthoff Inc
F&B Evergreen Food, F&B Winterized for Trees & Shrubs
Hawkeye Chemical Co
Formolene, Slo-Release, Form-u-sol
Great Salt Lake Minerals & Chemicals Corp
GSL Sulfate of Potash
Lebanon Chemical Corp
Green Gold, Lebanon Pro Tree
Leffingwell Chemical Co
(Chelated Iron) Nutra Phos, Sorba Spray, Vitatone
Lesco Inc
(Lesco Tree Stakes Fertilizer) Lesco Nursery Fertilizers; (Hi Trace) Lesco Iron + N
J J Mauget Co
Stemix, Iron Zinc Stemix, Zinc Stemix
MCI Agsystems
(Triamino-Triazine & Urea) MCI 55 SG; (Triamino-Triazine) Nitrazine 40 LS
Minntralia Mfg Inc
(Fish, Urea Nitrogen, Phosphoric Acid, Potassium Hydroxide, Norwegian Seaweed) Sunrane 8-8-8 Fish & Seaweed Fertilizer
Moyer & Son Inc
(Water Soluble Fertilzer) Verdi-Sol, Four Seasons
National Chemsearch
(Indol 3-Butyric acid) Promonite; (liquid fertilizer-15-10-5) Turf-King; (liquid fertilizer-12-4-12) Turf Sea Search: (15-0-0 Liquid Nitrogen fertilizer with Iron) Green-O-Gen; (timed-released fertilizer-20-10-5) SRF-27
Nor-Am Chemical Co
(Ureaform) NitroForm-Slow Release Nitrogen
Plant Marvel Laboratories Inc
(Nutriculture Formula) Tree & Shrub Special; Ornamental Special; Mag-Iron, Sol-Trace; 13% Iron Chelate, Mor-Green
Sierra Chemical Co
(20-10-5 + Calcium Sulp) Agriform
USS Agri-Chemicals
USS Vertagreen, USS Soilife

Fertilizer, Turf

J & L Adikes Inc
(Urea Form, Sulphur Coated Urea) Gro-Well
American Pelletizing Corp
(Lime, Gypsum) Reveille Pelletized; (Lime) Vita Power Pelletized
The Andersons
(N, P, K) Tee Time
Center Plains Industries Inc
Ultra Turf-Homogeneous, Zipp
C-I-L Inc
Sulfur Coated Urea
W A Cleary Chemical Corp
(Ureaformaldehyde) Fluf, Trugreen micronutrient, Extra Iron Nutrient
Cumberland International Corp
(Zinc) Liquid Zinc Chelate
Doggett Corp
(NPK water soluble) XL Turf Special 28-7-14; (NPK soluble, slow release, spray) XL UF Turf Special 34-4-7; (13% Chelated Iron EDTA) Ferro-late XL-Iron Chelate
Estech Inc
(IBDU) Par ex Professional Products
Faesy & Besthoff Inc
F&B Winterized lawn Fertilizer, F & B Professional Organic Plant Food (7-2-0)
Garfield Williamson Co
Lebanon-Swift
Great Salt Lake Minerals & Chemicals Corp
GSL Sulfate of Potash
Jonathan Green & Sons
Spring Green-Up 20-4-4
Hawkeye Chemical Co
Formolene, Slo-Release, Form-u-sol
Lebanon Chemical Corp
Country Club, Greenskeeper, Green Gold, Turfmaster, Country Squire, Lebanon
Leffingwell Chemical Co
(Chelated Iron) Nutra Phos, Sorba Spray, Vitatone
Lesco Inc
Lesco Sulphur Coated Urea
MCI Agsystems
(Triamino-Triazine/Urea) MCI 55 SG; (Triamino-Triazine) Nitrazine 40 LS
Milwaukee Metropolitan Sewerage District
(Natural Organic Fertilizer Milorganite
Minntralia Mfg Inc
(Fish, Urea Nitrogen, Phosphoric Acid, Potassium Hydroxide, Norwegian Seaweed) Sunrane 8-8-8 Fish & Seaweed Fertilizer
Moyer & Son Inc
(Slow Release Fertilizer) Super Blend 20-9-9
National Chemsearch
(12-4-4 liquid fertilizer with Sulfur and Iron) Green Badge; (15-0-0) liquid Nitrogen fertilizer with Iron) Green-O-Gen; (liquid High Nitrogen fertilizer) Nutrate; (time-released fertilizer-20-10-5) SRF-27; (liquid fertilizer-12-4-12) Turf King; (liquid fertilizer-12-4-12) Turf Search
Nor-Am Chemical Co
(Ureaform) Nitroform-Blue Chip and Powder Blue
PBI-Gordon Corp
(15% N-area-Iron & Sulphur) Ferrimec Liquid Iron
Plant Marvel Laboratories Inc
Nutriculture Formula Bent Special; Bermuda Special; Lawn Marvel; Mag-Iron, Sol-Trace, 13% Iron Chelate, Mor-Green
Rhone-Poulenc Inc Agrochemical Div
(Sulfur, Copper, Iron Manganese, Zinc) Chipco Microgreen Liquid
Rockland Chemical Co
(IBDU, Nitroform) Rockland Twin Win; (Milorganite + N P K) Mil-An-Chem
O M Scott & Sons Co
Sierra Chemical Co
(Resin-coated Long Lasting Turf Mixes) Agriform
Sta-Green Plant Food Co
Sta-Green
Stanford Seed Co
(26-4-8, 8-20-10) Old English
Sudbury Laboratory Inc
(Natural Chelating + Trace Elements) Sudbury Sea Power Liquified Sea Weed
USS Agri-Chemicals
USS Vertagreen, USS Soilife

Vaughan's Seed Co
Warren's Turf Nursery Inc
(SCU IBDU) Warren's Turf Professionals

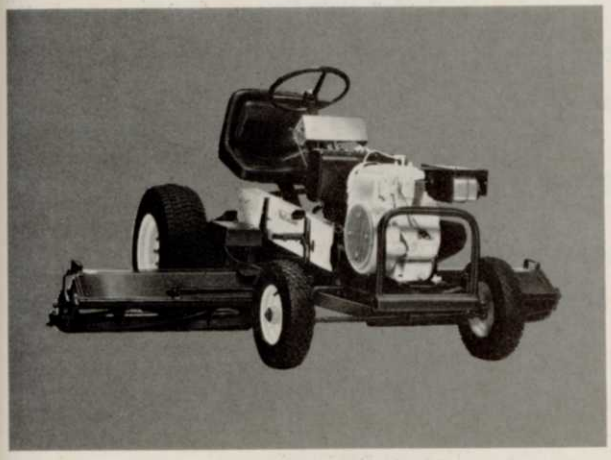
Fungicide, Tree

J & L Adikes Inc
(Benomyl, Zineb, Ferbam) Gro-Well
American Pelletizing Corp
(Gypsum) Vita Power Pelletized
Bonide Chemical Co
(Captan) Bonide Captan; (Benlate) Bonide Benomyl; (Copper) Bonide Liquid Copper; (Sulphur) Bonide Sulphur; (Maneb) Bonide Liquid Maneb; (Phaltan) Bonide Folpet; (Captan, Sevin, Methoxychlor, Malathion Spreader) Bonide Fruit Tree Spray Liquid
Ciba-Geigy Corp
(Metalaxyl) Subdue
W A Cleary Corp
(Thiophanate ethyl) Cleary 3336
Cumberland International Corp
(Maneb) Maneb ZL4
Elanco
Rubigan 50W
Lesco Inc
(Mancozeb) Lesco 4; (PCNB) Lesco PCNB 1090
Mallinckrodt Inc
(Zn, Mn, Thiophanate Methyl) Zyban
J J Mauget Co
(DEBC + 2-MBC) Fungisol; (PlantVax Oxycarboxin) Fungisol PV;
Mobay Chemical Corp
(Triadimefon) Bayleton 25
Merck & Co
(Thiabendazole) ARBOTECH
PBI-Gordon Corp
(Copper, 25 Metallic, 12.7%) True Bordeaux Mixture; (Fore) Formel 80
Rockland Chemical Co
Rockland
Rohm & Haas Co
Dithane, Karathane
SDS Biotech
(Chlorothalonil) Daconil 2787
Source Technology Biologicals Inc
(Copper Sulphate Pentahydrate) Phyton 27

Fungicide, Turf

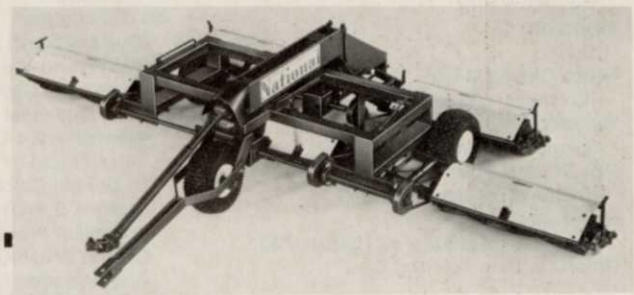
J & L Adikes Inc
(Dyrene, Cadmium Chloride) Gro-Well
The Andersons
(Daconil) Tee Time
Bonide Chemical Co
(Benomyl) Bonide Lawn Fungicide; (Maneb) Bonide Liquid Maneb; (Daconil) Bonide Chlorathalonil; (zineb, Cadmium Chloride Thiram) Bonide Lawn Fungicide; (Thiram) Bonide Lawn Fungicide; (Dyrene) Bonide Dyrene
Ciba-Geigy Corp
(Metalaxyl) Subdue
W A Cleary Chemical Corp
(Thiram) Spotrete; (Phenylmercuric acetate) PMAS; (Thiophanate ethyl) Cleary 3336; (Cadmium Chloride) Caddy
Cumberland International Corp
(Maneb) Maneb ZL4
E I du Pont de Nemours & Co
Tersan LSR, Tersan 1991, Tersan SP
Elanco Products Co
(Fenarimol) Rubigan
Faesy & Besthoff Inc
F & B Betasan-Granular & Liquid, F & B Lawn Fungicide, F & B Lawn & Turf Fungicide
Garfield Williamson Co
Major Brands
Kincaid Enterprises Inc
(Chloroneb Fungicide) Terraneb SP
Lebanon Chemical Corp
Greenskeeper, Country Club, Green Gold
Lesco Inc
Lesco 4, Lesco 4 Flowable; Lesco Thiram; Lesco PCNB; Lesco Snow Mold Fungicide
Mallinckrodt Inc
(Mercuric Chloride, Mercurous Chloride) Calo-Clor, Calo-Gran; (Cadmium Succinate) Cadminate; (ZN, Mn EBCD, Thiophanate Methyl) Duosan; (Thiophanate Methyl) Fungo 50; (Cadmium Sebecate, Potassium, Chromate, Thiram) Kromad; (Ethazol) Koban 30, Koban 1.3G; (Thiram) Thiramad
Mobay Chemical Corp
Bayleton 25; (Anilazine) Dyrene 50
Nor-Am Chemical Co
(Cycloheximide) Acti-Dione TGF, Thiram, RZ; (Propamocarb) Banol

For more uptime you need a National!



- Ask any professional, National's known for providing maximum efficiency with minimum maintenance...and a lot more!
- **New Steering Assembly** (Model 84) for easier steering and longer service life.
- **B&S, I/C Heavy Duty Engine** (Model 68) for increased performance and less maintenance.
- **Less Down Time.** Standard off-the-shelf items like belts and bearings, available from any local supplier.
- **Greater Fuel Economy.** 44% to 62% less fuel consumption than power robbing, hydrostatic type rotary mowers.
- **Lower Initial Cost** than that of mowers sold to do the same job.

MODEL PQ II



MODEL 84

MODEL 68

★ ★ ★ NATIONAL MOWER SINCE 1919

NATIONAL MOWER COMPANY
660 Raymond Avenue, St. Paul, MN 55114
612/646-4079

Circle No. 140 on Reader Inquiry Card

PBI Gordon Corp
(Chloroneb) Teremec SP
Rhone-Poulenc Inc Agrochemical Div
(Iprodine) Chipco 26019 Fungicide; (Aluminum Tris) Aliette Fungicide
Rockland Chemical Co
Rockland
Rohm & Haas Co
Fore
O M Scott & Sons Co
SDS Biotech Corp
(Chlorothalonil) Daconil 2787

Growth Regulator

Aquashade Inc
(Dye Colorant) Aquashade
J & L Adikes
Embark
Cal-Fiber Co
(Cellulose) Mulch
Drexel Chemical Co
(Maleic Hydrazide) Retard
Elanco
Cutless
Maag Inc
Atrinal
3M/Agricultural Products
(Mefluidide) Embark
Merck & Co
(Gibberellic Acid) GIBREL
Monsanto Co
Limit
National Chemsearch
(Melfluidide) Gro-Tard II
Pennwalt Corp
Perlux Inc
(Liquid Growth Retardant) Perlux
UAP Special Products
Respond

Herbicides, Aquatic

Applied Biochemists Inc
(Diquat) Weedtrine-D; (2,4-D ester) Weedtrine II
Aquashade Inc
(Dye Colorant) Aquashade
Chevron Chemical Co
Ortho Diquat Herbicide H/A
Ciba-Geigy Corp
(Simazine) Aquazine
Clean-Flo Laboratories Inc
(Buffered Alum) Clean-Flo Lake Cleanser
Elanco
Aquatic Sonar
Monsanto Co
Rodeo
Nalco Chemical Co
(Bromacil/Diuron) Nalco 2413
National Chemsearch
(Diquat) Watrol
PBI Gordon Corp
(Dichlobenil) Norosac 10-G
Pennwalt Corp
(Endothol) Aquathol K, Hyrothol 191
Union Carbide Ag Prod Co

Herbicides, Nonselective

J & L Adikes Inc
Pramitol + 2,4-D) Gro-Well
American Cyanamid
(Imidazoline) Arsenal
The Andersons
Tee Time
Asplundh Tree Expert Co
(Bromacil) Clearway
Bonide Chemical Co
(Cacodylic Acid) Bonide Grass-N-Weed Killer; (Ammate) Bonide Grass-N-Weed; (Ammate) Bonide Ammate Liquid; (Sodium Arsenite) Bonide Sodium Arsenite
Chevron Chemical Co
Ortho Paraquat Plus
Ciba-Geigy Corp
(Promotone) Pramitol
Cumberland International Corp
(Cacodylic Acid) Bolate, Bophy
Elanco Products Co
Spike
Garfield Williamson
Major Brands
Hopkins Agricultural Chemical Co
Revenge, Rout & Dozer, Urox
Lesco Inc
(Sodium Metaborate Tetra-Hydrate, Sodium Chlorate, Bromacil) Lescobor
Monsanto Co
Roundup
National Chemsearch
(Sodium Chlorate, Sodium Metaborate Anhydrous) Cantex; (Bromacil, Pentachlorophenol) Fenocil; (3 (p-chlorophenyl)-1, 1-Dimethylurea Trichloroacetate, 2,4-Dichlorophenoxyacetic acid) NS-610
Occidental Chemical Co
Monobor Chlorate, Ureabor
PBI Gordon Corp
(Dichlobenil) Dyclomec, Nordsac 10-G, Barrier 50-W; (Prometon 2,4-D, Arometic Petroleum distilates Vegemec
Rigo Co
(Amino Triazole) Rigo Amitrol T
Rockland Chemical Co
Rockland
Shell Chemical Co
(Atrazine) Shell Atrazine 80W
UAP Special Products
(Prometon) Clean Corp Pramitol

Herbicides, Postemergence Selective

J & L Adikes Inc
(Trimec, AMA + 2,4-D, DSMA + 2,4-D) Gro-Well
The Andersons
Tee Time
Aquashade Inc
(Dye Colorant) Aquashade
BASF Wyandotte Corp
(Bentazon) Basagran
Bonide Chemical Co
(Banvel + 2,4-D) Bonide Lawn Weed Killer-Liquid or granular; (Banvel + 2,4-D) Bonide Chickweed & Clover Killer; (AMA + 2,4-D) Bonide Crabgrass & Broadleaf Weed Killer; (Benvel D) Bonide BrushKil (Trimec) Bonide RTU Spot Weeder; (2,4-D) Dandelion Killer
Ciba-Geigy Corp
(Atrazine) AAtrex; (Simazine) Princep
W A Cleary Chemical Corp
(2,4-D + dichlorprop) Weedone DPC (DSMA) Methar-30; (Mecoprop) MCPP
Dow Chemical USA
(Triclopyr + 2,4-D) Turflon D
Drexel Chemical Co
(MSMA) Ansar 529; (DSMA) DSMA Slurry MSMA 6.6, MSMA 4 Plus; (Atrazine) Drexel Atrazine 4L & 5L; (DSMA) Drexel DSMA Liquid & Slurry; (Cacodylic Acid) Drexel KACK; (Cacodylic Acid + MSMA) Drexel KACK & MSMA; (Simazine) Drexel Simazine 4L
Garfield Williamson
Major Brands
ICI
Fusilade
Kalo Agricultural Chemicals
(2,4-D) Demise
Lesco Inc
Lesco Three Way, Lesco A-4D, Lesco Dicamb, Lesco 8:1, Lesco Weedone, Lesco Granular Herbicide, Lesco Brominal, Lesco 6.6 (Propionamide) Lesco Devrinol 5G; (2,4-D, MCPP) Lescopar; (2,4-D, 2,4-DP) Lesco Weedone DPC
Mallinckrodt Inc
(Dicamba, 2,4-D, MCRP) Trexsan
Mobay Chemical Corp
(Metribuzin) Sencor 75 Turf
National Chemsearch
(DAMA) CGK-79; (MCPP) Chem-Weed; (2,4-D, MCPP) Apollo 445
Nor-Am Chemical Co
(Ethofumesate) Prograss
PBI Gordon Corp
(Phenoxy Compounds) Trimec; (2,4-D) Dymec; (MCPP) Mecomel, Super Trimec
Rhone-Poulenc Inc Agrochemical Div
(Asulam) Asulox Herbicide; (Bromoxynil) Chipco Buctril Herbicide; (2,4-D Amine, MCCP Amine) Chipco Turf Kleen Herbicide
Rigo Co
2,4-D plus Dicamba) Super D Weedone
Rockland Chemical Co
Rockland
Rohm & Haas Co
Kerb, Goal
O M Scott & Sons Co Proturf
SDS Biotech
(MCPP Amine & 2,4-D Amine) 2 Plus 2—MCPP+2,4-D; (MSMA) Daconate 6; (2,4-D Amine) Dacamine 4-D
Sta-Green Plant Food Co
Sta-Green
Stanford Seed Co
(MCPP 2,4-D) Old English
UAP Special Products
(2,4-D, MCPP dicamba) Mec Amine-D, Four Power Plus; (2,4-D / 2,4-DP) DPD Ester
Velsicol Chemical Corp
(Dicamba) Banvel 4S, Banvel +24-D

Herbicides, Preemergence

J & L Adikes Inc
(Balan, Tupersan, Dacthal) Gro-Well
The Andersons
Tee Time
Aquashade Inc
(Dye Colorant) Aquashade
Bonide Chemical Co
(Dacthal 5G) Garden Turf & Ornawental Herbicide; (Dacthal 75W) Bonide Turf & Ornawental Herbicide; (Tupersan 2.75 and 7.65) Bonide Crabgrass Preventer; (Eptam) Bonide Weed Seedling Killer

Penneagle's still pushing out Poa at Oakmont C.C.

Less than 20% Poa annua remains on fairways with this innovative program.

Fairways are aerified and overseeded with Penneagle at Oakmont C.C. every fall

Oakmont CC, Pennsylvania, host of six U.S. Open Championships,* has renovated its entire course with Penneagle Creeping Bentgrass.

We have been overseeding every fall since 1977 with Penneagle. This superior creeping bentgrass has persistently crowded out Poa annua on tees, fairways and greens. By triplex mowing and collecting the clippings, our fairways are now more than 80% Penneagle. This entire process is performed while the course is in play. With the reputation of six U.S. Opens behind us, I wouldn't even consider anything less than Penneagle."

Paul Latshaw

Paul Latshaw
Supt. Oakmont Country Club

*1927, '35, '53, '62, '73, '83.

Penneagle blue tags earn cash or prizes. Call for details.

Oregon Certified Penneagle, one of the **"PennPals"**

Circle No. 180 on Reader Inquiry Card

Marketed by **TEE-2-GREEN Corp.**, PO Box 250 Hubbard, OR 97032 1-800-547-0255 TWX 510-590-0957

continued

Ciba-Geigy Corp
(Simazine) Princep
Drexel Chemical Co
(Atrazine) Atrazine 5L; (Dinitro) Dynamte 3
Elanco Products Co
Balan, Benefin, Team, XL, Treflan, Surflan
Faesy & Besthoff Inc
F & B Eptam 2.3
Garfield Williamson Co
Major Brands
Lesco Inc
(Bensulide, Benefin) Lescosan 4E, Lesco Devrinol 5G, Lesco Benefin Sprayable
Lesco Inc
(Bensulide) Lescosan; (DCPA) Lesco Dacthal; Lesco Benefin, Lesco Devrinol
Mallinckrodt Inc
(Bensulide) Presan
Mobay Chemical Corp
(Metribuzin) Sencor 75 Turf
National Chemsearch
(Dimethyl Tetrachloroterephthalate) Pretrol
Nor-Am Chemical Co
(Ethofumestate) Prograss, Enide
PBI Gordon Corp
(Dichlobenil) Norosac 4-G, Dyclomec 4-G; ((Betasan) Betamel 4LF
Regal Chemical Co
(Oxadiazon + Benefin) Regalstar; (2% Oxadiazon) Regal Ronstar Plus
Rhone-Poulenc Inc
(Oxadiazon) Chipco Ronstar 50 WP
Rockland Chemical Co
Rockland
Rohm & Haas Co
Kerb, Goal
O M Scott & Sons Co
(Pendamethalin) Turf Weedgrass Control
SDS Biotech
(DCPA) Dacthal
Stanford Seed Co
(Balan, Tupersan) Old English
Stauffer Chemical Co
(Bensulide) Betasan
UAP Special Products
(DCPA) Dacthal WDG; (Benefin) Balan 2.5G; (Bensulide) Betasan

Insecticides, Tree

Acme Burgess Inc Chemical Div
(Bacillus Thurigiensis, Sevin, Malathion, Diazinon)
J & L Adikes Inc
(Malathion, Dormant Oil, Methoxychlor, Diazinon, Sevin) Gro-Well
Bonide Chemical Co
(Malathion, Methoxychlor, Sevin, Kelthan Spreader) Bonide Evergreen Flower Insect Spray; (20% or 5%) Bonide Borer Miner; (Imidan) Bonide Imidan; (Diazinon) Bonide Diazinon; (Sevin) Bonide Sevin; (Malathion) Bonide Malathion; (Methoxychlor) Bonide Methoxychlor; (Bacillus Thuringiensus) Bonide BT Liquid; (Dursban) Bonide Dursban; (Roteuone + Pyrethrim) Bonide Liquid Roteuone/Pyrethrim Spray; (Metasystox) Bonide Metasystox; (Disyston) Bonide Systemic Granules; (Cygon) Bonide Cygon; (Dormantoil) Bonide Dormantoil
Chevron Chemical Co
(Acephate Dibrom 8 Emulsive) Orthene; (Lindane) Naled Isotox Lindane Spray 200
Ciba-Geigy Corp
(Diazinon) DZN
Creative Sales Inc
(Acephate) Acecap 97
Ross Daniels Inc
(Organophosphate) Ross
Dow Chemical USA
(Chlorpyrifos) Dursban 50W
Drexel Chemical Co
(Carbaryl) Carbaryl 4L & 2L; (Phytonomic oil) Damoil; (Diazinon) D-264-EC500; (Lindane) Borer Spray
Faesy & Besthoff Inc
F & B Diazinon-Granular & Liquid, F & B Dormant Oil
Garfield Williamson Co
Major Brands
Kincaid Enterprises Inc
(Methoxychlor Insecticide) Marlate 50
Lesco Inc
(Dursban) Lesco Turf + Ornamental Insecticide
Mallinckrodt Inc
Bendiocarb, Dycarb, (Diazinon & Methoxyclor) Dymet; (Bendiocarb) Dymet

With the Lancer 350, 2 men can cover a lot of ground.

The only thing small about the Lancer 350 Hyrdro-Mulcher is its size. On the job, this 350-gallon unit is a giant.

In a normal work day, a two-man crew can cover:

- **4 home lawns (21,000 sq. ft.) on 6 tankloads, or**
- **1 apartment or condo lawn (42,000 sq. ft.) on 12 tankloads, or**
- **1 athletic field (63,000 sq. ft.) on 18 tankloads.**

The Lancer 350, mounted on a single-axle trailer, handles seed, sprig, fertilizer and/or mulch operations. It comes with four nozzles and a 50′ extension hose. Optional is a high-pressure pump for herbicide and fungicide application.

For more information, including a free catalog, write or call today.

Bowie Industries, Inc.
P.O. Box 931 Bowie, Texas 76230 817/872-2286

Circle No. 106 on Reader Inquiry Card

Sea World®
San Diego • Aurora, Ohio • Orlando

Great family fun at the most spectacular marine life parks in the world.

Rubigan® puts an end to your golfer's Poa excuse

GUARANTEED

They can't blame you for bad putts. Not when you control your *Poa annua* with Rubigan. When used in a pre-emergence program applied in the late summer and early fall, Rubigan delivers 75-95% *Poa* control, without affecting your ryegrass seed germination.

Rubigan also controls dollar spot and large brown patch. Roots and leaves quickly absorb Rubigan, and once the spray dries, it won't wash off. Plus, with Rubigan, your resistance worries are limited due to multi-sites of inhibition.

Rubigan's safety to Bermuda grass turf tops off the list of reasons why you should be using Rubigan in your *Poa* control program.

So when *Poa* roughs up your course and ruins your golfer's putts, pull out your Rubigan, and put an end to their *Poa* excuse.

For best results always read and follow label directions.

Elanco Products Company
A Division of Eli Lilly and Company
Dept. E-455
Indianapolis, IN 46285, U.S.A.

Turf products with benefits that make the difference.

Rubigan®—
(fenarimol, Elanco Products Company)

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J J Mauget Co
(Metasystox R-Oxy-Demetonmethyl) Inject-A-Cide; (Bidrin Dicrotophos Inject-A-Cide "B"
Mobay Chemical Corp
(Disulfoton) Di-Syston; (Azinphos-methyl) Guthion; (Oxdemeton-methyl) Metasystox-R; (Demeton) Systox
National Chemsearch
(Dursban/DDVP) Dichloron; (Disyston) Stem-AX
Nor-Am Chemical Co
(Bendiocarb 76%) Turcam, Baam, Sok-Bt
PBI-Gordon Corp
(Sumithion) Destroy; (carbaryl) carbamel
Prentiss Drug & Chemical Co
(Diazinon, Malathion, Methoxychlor) Prentox
Rigo Co
(Diazinon) Rigo Diazinon A-C 500; (Malathion) Rigo Malathion SE
Rockland Chemical Co
Rockland
Shell Chemical Co
(Monocrotophos) Azodrin 5WM; (Methomyl) Nudrin 1.8S; (Methomyl) Nudrin 90WSP; (Fenvalerate) Pydrin 2.4EC; (Fenbutatin-Oxide) Vendex 50WP; (Fenbutatin-Oxide) Vendex 50WSB
Stauffer Chemical Co
Imidan
UAP Special Products
Union Carbide Ag Prod Co
Sevin
Zoecon Corp
(Fluvalinate) Mavrik Aquaflow

Insecticides, Turf

Acme Burgess Inc Chemical Div
(Chlorpyrifos, Diazinon, Malathion)
J & L Adikes Inc
(Oftanol, Diazinon, Dursban) Gro-Well
American Cyanamid Co
(Dimethoate) Cygon
The Andersons
(Dursban, Diazinon) Tee Time
Bonide Chemical Co
(Dursban) Bonide Dursban; (Oftanol) Bonide Grub Beater; (Diazinon) Bonide Diazinon; (Sevin) Bonide Seven
Chevron Chemical Co
(Acephate) Orthene
Ciba-Geigy Corp
(Diazinon) DZN
W A Cleary Chemical Corp
(Dursban) Cleary's Dursban; (Diazinon) Cleary's Diazinon
Dow Chemical USA
(Chlorpyrifos) Dursban 4E
Drexel Chemical Co
(Lindane) Borer Spray
Hopkins Agricultural Chemical Co
(Diazinon, Malathion)
Kincaid Enterprises Inc
(Methoxychlor) Marlate Flowable
Lesco Inc
Lesco Oftanol & Fertilizer, Lesco Dursban, Lesco Diazinon
Lebanon Chemical Corp
Green Gold, Country Club, GreensKeeper
Mallinckrodt Inc
Diazinon & Methoxyclor, Dymet
Mobay Chemical Corp
(Isofenphos) Oftanol; (Trichlorfon) Dylox
National Chemsearch
(Dursban/DDVP) Dichloron
Nor-Am Chemical Co
(Dioxathion) Deltic; (Bendiocarb) Turcam; (Trichlorfon) Proxol
Prentiss Drug & Chemical Co
(Diazinon, Chlorpyrifos, Propoxur) Prentox
Rhone-Poulenc Inc Agrochemical Div
(Ethoprop) Chipco Mocap
Rigo Co
(Diazinon) Rigo; (Dursban) Rigo Lawn & Ornamental
Rockland Chemical Co
(1.5% Oftanol) Rockland Grub-Out
O M Scott & Sons
ProTurf
Stanford Seed Co
(Diazinon) Old English
Stauffer Chemical Co
Aspon
UAP Special Products
(Diazinon) Diazinon Granules & Liquid; (Bendiocarb) Turcam Granules; (Chlorpyrifos) Clean Corp Chlorpyrifos
Union Carbide Ag Prod Co
(Carbaryl) Sevin
Zoecon Corp
(Fluvalinate) Mavrik Aquaflow

Wherever man molds the earth to his purpose, Ditch Witch is there.

The Ditch Witch 4010 trencher, equipped with an A420 backhoe;

the best selling 40-HP-class trencher in the world.

The Charles Machine Works, Inc., P.O. Box 66, Perry, OK 73077-0066, (800) 654-6481

Miticides
Mobay Chemical Corp Agri Chem Div
Morestan
Rohm & Hass Co
Kelthane
Zoecon Corp
(Dienochlor) Pentac Aquaflow

Mulches And Erosion Control
American Excelsior
(Excelsior Blanket) Curlex
The Andersons
Grass Mulch
Cal-Fiber Co
Cellin Mfg Inc
Cellin Fiber Mulch, Turfiber Mulch
Conwed Corp
Hydro Mulch
Grass Fiber Inc
(Processed Fiber) Grass Mulch
Grass Growers Inc
Terra Tack I, III, AR, MP
Hendrix & Dail Inc
(DuPont Plant Cover, Polyethylene Mulch) Reemay
Hoechst Fibers Ind
Nepera Inc
(Acrylamide/Acrylic Acid Copolymer) Viterra Gelscape
Phillips Fibers Corp
Weed Conrol Mat
Reclamare Co
(Hydrocolloids) J-tac, HS, AS, R-2400; (PVA) Marloc
Rothwell Seeds Ltd
(Wood Fibre) Conwed
Thermoguard
Turfiber-Cellin
Warren's Turf Nursery Inc
Warren's Terrabond Polyester Geotextile Fabrics
Weyerhaeuser
(Wood Mulching Fibers) Silva Fiber

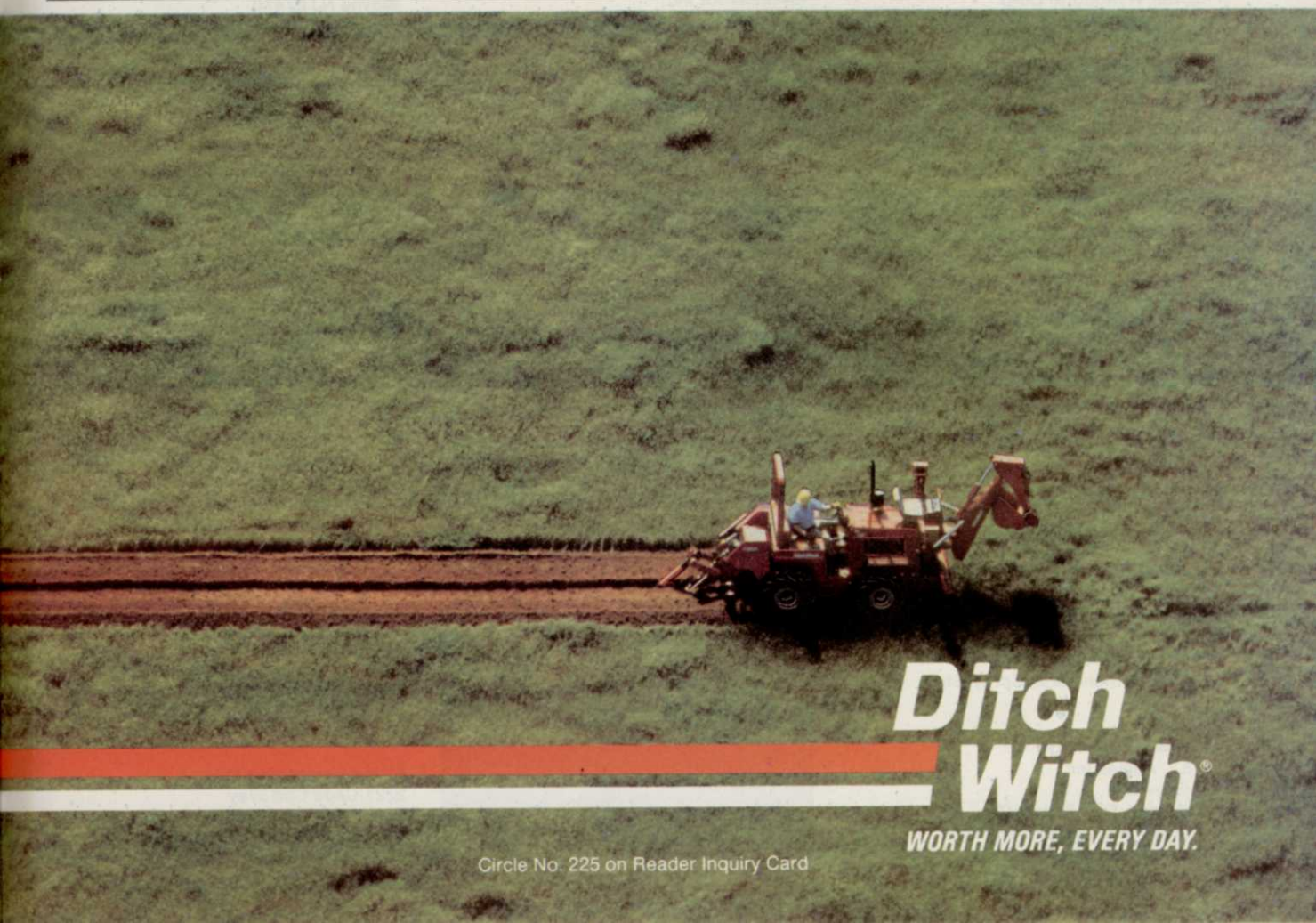
Nematocides
Bonide Chemical Co
(Vapam) Bonide Soil Fumigant
Estech Inc
(Vapam) Vigoro, Gro-Tone
Mobay Chemical Corp
(Fenamiphos) Nemacur 10%
Rhone-Poulenc Inc Agrochemical Div
(Ethoprop) Chipco Mocap
Stauffer Chemical Co
Vapam

Repellents, Animal
Hopkins Agricultural Chemical Co
(Thiram) Thiram 42-S
Leffingwell Chemical Co
Hinder

Root Killer
Faesy & Besthoff Inc
F & B Rooticate

Soil Amendments
Finn Corp
(Water Absorbent Polymer) Finn A-1000 Hydro Gel

Soil Conditioner
Arthur Enterprises Inc
Penteturf
Cal-Fiber Co
(Cellulose) Mulch
W A Cleary Chemical Corp
(Sulphur) Sulphur-F (Calcium Carbonate) Limestone F
Estech Inc
(Perlite) Vigoro
Four Star Agricultural Services Inc
(Ammonium Laureth Sulfate) Pene-Turf
Grass Fiber Inc
Garden Mulch
ICI
International Reforestation Suppliers Inc
Lesco Inc
Lesco Wet/Lescozyme
Michigan Peat Co
(Peat Moss) Baccto Michigan Peat, Baccto Horticultural Sphagnum Peat Moss, Baccto Top Soil
Nalco Chemical Co
Nalco 2190
National Bark Sales
(Composted Bark) Top-N-Turf
National Chemsearch
(water soluble iron) Ferate; (natural organic extract) Nature-Aid; (an ionic blend of penetrants) Turf-Tonic



Circle No. 225 on Reader Inquiry Card

Nepera Inc
(Acrylamide/Acrylic Acid copolymer) viterra Gelscape
Oil-Dri Corp of America
Terra Green
PBI-Gordon Corp
(Concentrated Cow Slurry) Bov-A-Mura
UAP Special Products
Turfade
United States Gypsum Co
(Gypsum) Sof'N-Soil

Soil Fumigants

Bonide Chemical Co
(Vapam) Bonide Soil Fumigant
Faesy & Besthoff Inc
F & B Vapam
Hendrix & Dail Inc
(Methyl Bromide/Chloropicrin mixtures) MBC Soil Fumigant, MBC Concentrate, MBC-33; (Chloropicrin) HD-Pic Fumigant
Hopkins Agricultural Chemical Co
Mylone 50D
Nor-Am Chemical Co
(113 Dichloropropene & related Chlorinated Hydrocarbons) Vorlex
Shell Chemical Co
Stauffer Chemical Co
Vapam

Sticker Extender

J & L Adikes Inc
NuFilm 17
BASF Wyandotte Corp
Citowett Plus
Bonide Chemical Co
(Spreader-Sticker) Bonide Spreader Sticker
Chevron Chemical Co
Chevron Spray Sticker
Cumberland International Corp
(Adjuvant) Ag-Chem Activator
Drexel Chemical Co
(Alkylaryl poly Ethanol) Add-It-To-Oil; (Alkylaryl Polytholxyethanol) Surf Ac 820; (Surfactant) Wetz
Encap Products Co
Spray-Stay
Hopkins Agricultural Chemical Co
Plyac
Kalo Agricultural Chemicals
BioFilm
Lesco Inc
Lesco Spreader Sticker
PBI-Gordon Corp
(Polymers & Parafins) Exhalt 800 Tank Mix Encapsulator
Rigo Co
Rigo Spreader w/defoamer; Spray-Ad CVF
Rohm & Haas Co
Triton
UAP Special Products
Bond
Wilt-Pruf Products Inc
(di-1-P-menthene) Spray-Stay

Tree Dressings

J & L Adikes Inc
Gro-Well
Asplundh Tree Expert Co
(Ethyl 1-Naphthaleneacetate
Bartlett Mfg Co
Bonide Chemical Co
(Asphalt Solids) Bonide Pruning Wound Bomb, Tree Paint
Samuel Cabot Inc
(Healing Paint) Cabot's Tree
Coopers Creek Chemical Corp
C-4
Lesco Inc
Lesco Pruning Spray

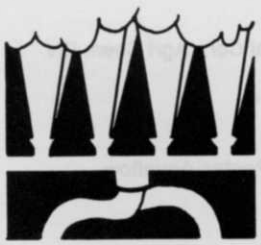
Wetting Agents

Aquatrols Corp of America
100% blend of non-ionic, organic Surfactants) Aqua-Gro "L", (100% blend Surfactants on ground corn cobs) Aqua-Gro "S"
Asplundh Tree Experts Co
(Alkylphenolpolyoxyethylene) Surfactant
BASF Wyandotte Corp
Citowett Plus
W A Cleary Chemical Corp
(Alkylphenolpolyoxyethylene) All Wet, Super Wet. Super Wet Granular
E I du Pont de Nemours & Co
Surfactant WK
Finn Corp
Hydro-Gel
Hopkins Agricultural Chemical Co
Neptune
Kalo Agricultural Chemicals
Hydrowet
Lesco Inc
(Non-ionic surface active surfactant) Lesco Wet
Mallinckrodt Inc
Aquagro
Montco Products Corp
(Non-ionic Surfactants) Surf-Side
Moyer & Son Inc
(Spreader/Sticker) Spray Film B
National Chemsearch
(An ionic blend of penetrants) Turf-Tonic; (non-ionic blend of penetrants) Groundsmaster SWA
Nepera Inc
(Acrylamide/Acrylic Acid Copolymer) viterra Gelscape
PBI-Gordon Corp
Aquazorb
Rigo Co
Rigoette Plus
Rohm & Haas Co
Triton

COMING IN OCTOBER ...

Readex Issue

An exclusive survey of Weeds Trees & Turf.



4. Chemical Companies

Acme Burgess Inc
Chemical Div
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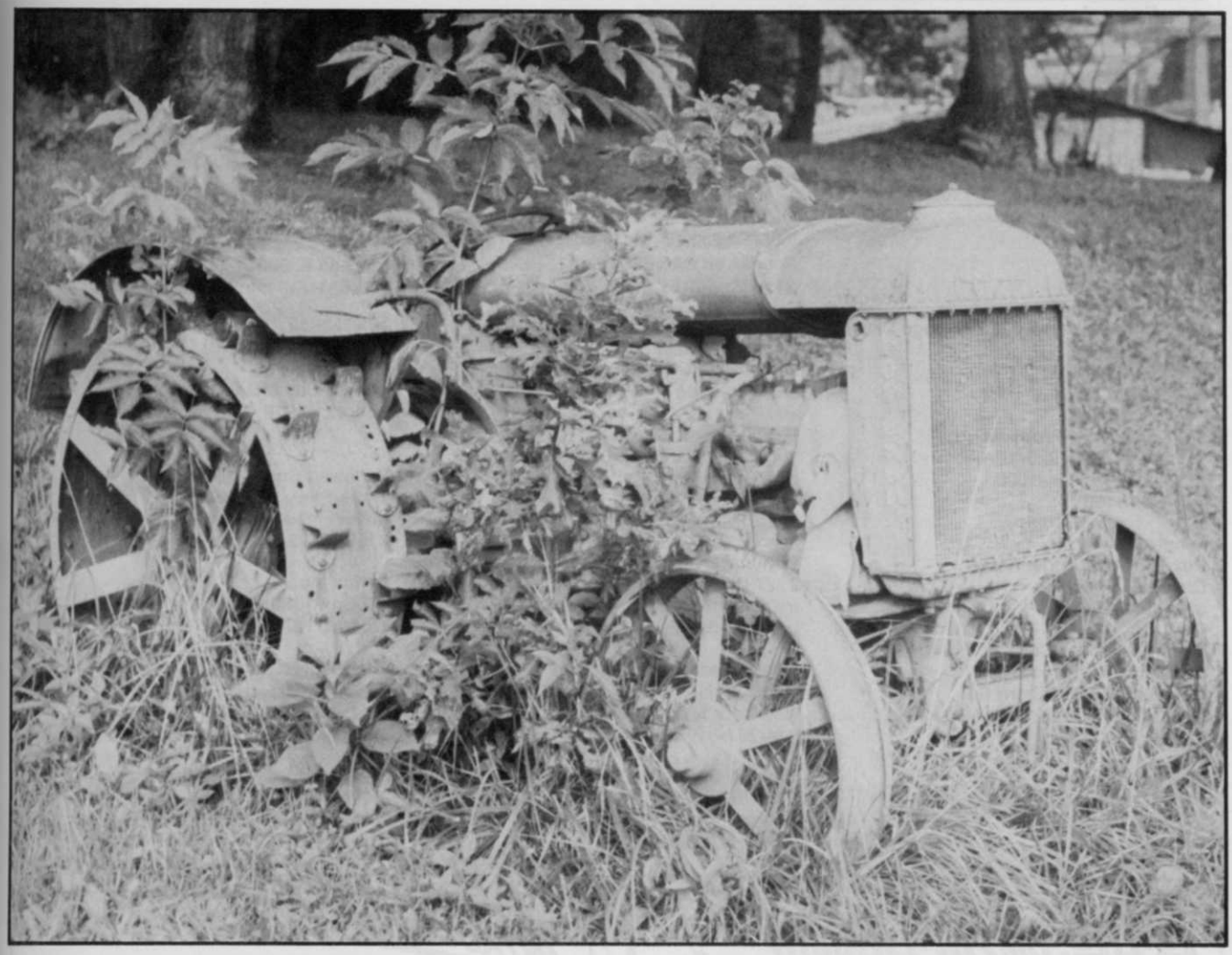

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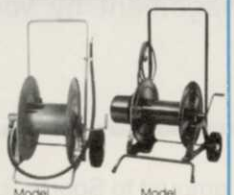

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503-928-3100
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Jonathan Green & Sons Inc
Squakum-Yellowbrook Rd
PO Box 326
Farmingdale NJ 07727
201-938-7007

Geo W Hill & Co
8010 Dixie Hwy
PO Box 787
Florence KY 41042
606-371-8423
Kentucky Bluegrasses: Eclipse; Perennial Ryegrasses: Regal, Derby, Manhattan II, Pennant; Fescues: Finelawn Turf-Type Tall, Jaguar Turf Type Tall; Turfseed Mixes or Blends: Triple Play Turf-Type Perennial Ryegrass Blend

★International Seeds Inc
820 First St
PO Box 168
Halsey OR 97348
503-369-2251
Kentucky Bluegrasses: Vantage; Perennial Ryegrasses: Derby, Regal, Gator; Fescues: Highlight (Chewing), Red, Ensylva (Creeping), Houndog (Tall); Bentgrasses: Emerald, Penncross, Penneagle; Turfseed Mixes or Blends: Dixie Green Mix, Dixie Green/Sabre Mix, Ph D Overseeding Blend, Ph D/Sabre

★Jacklin Seed Co
W 5300 Jacklin Ave
Post Falls ID 83854
208-773-7581
Kentucky Bluegrasses: Nugget, Glade, Adelphi, Eclipse, Classic, 98/85 Standard, 85/80 Standard, A-34, Julia, Geronimo, Merion, Troy, Wabash, Nassau, Ram I, Fylking, Cheri; Perennial Ryegrasses: All Star, Uncertified Manhattan, Certified Manhattan, Pennfine; Fescues: Arid (Tall), Cascade (Chewing), Logro Spreading, Countess (Chewing); Bentgrasses: Penncross, Seaside, Penneagle; Other: Environmental; Reubens Canada Bluegrass reclamation, grass seeds, Streaker redtop, Pinto Wildflower and Grass Seed Mixtures

★Lesco Inc
20005 Lake Rd
Rocky River OH 44116
216-333-9250
Turfseed Mixes or Blends: Lesco Tuf-Turf, Tall Fescue & KY Blue; Lesco Park & Athletic, KY Blue, Red Fescue, Perennial Rye; Lesco CBS, Perennial Rye Mix; Lesco Classic, KY Blue, Perennial Rye, Chewing Fescue; Lesco Quality Blue, KY Blue Mix; Lesco Transition, Tall Fescue Mix

★Loft Seed Inc
Chimney Rock Rd
PO Box 146
Bound Brook NJ 08805
201-356-8700
Seed Types: Clemfine Tall Fescue, Rebel Tall Fescue, Prelude & Palmer Perennial Ryegrasses, Diplomat & Yorktown II Perennial Ryegrasses, Baron & Ram I KY Bluegrasses

Mangelsdorf Seed Co
PO Box 327
St Louis MO 63166
314-535-6700
Kentucky Bluegrasses: Arboretum

★Manhattan Ryegrass Growers Assoc
1349 Capitol St NE
Salem OR 97303
503-363-1022
Perennial Ryegrasses: Manhattan, Manhattan II

Normarc Inc
PO Box 238
Tangent OR 97389
502-926-5801
Seed Types: Premier Perennial Ryegrass

★Northrup King Co
Medalist Turf Products Div
1500 NE Jackson St
Minneapolis MN 55413
612-781-8011
Kentucky Bluegrasses: Cert Parade, Rugby, Aquila, Park, Aspen, Adelphi; Perennial Ryegrasses: NK200, Delray, Pennfine, Goalie, Eton; Fescues: Ruby (Creeping), Dawson Red, Atlanta (Chewing), Scaldis (hard), Galway (Tall); Bentgrasses: Penncross, Penneagle, Seaside; Turfseed Mixes or Blends: Athletic Pro, Athletic Pro II, Overseeder II, Medalist North, Special Park, Premier Turf, Premium Sod, Swift & Sure, Shady Turf, Landscape Pro, Renovator Pro, Boulevard Mix; Winter Overseeding Products: Medalist 5, 6, 7, 60/40, 300,

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2140 Turner Rd SE
Salem OR 97302
503-585-1157
Fescue: Fine Fescue

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Salem OR 97302
503-585-1157
Fescue: Tall Fescue

Oregon Ryegrass Growers Seed Commission
4093 12th St Southeast
Salem OR 97302
503-364-3346
Perennial Ryegrasses: Oregon Ryegrasses; Other: Annual Ryegrasses

Oseco Inc
PO Box 219
Brampton ON L6V 2L2
Canada
416-846-5080
Kentucky Bluegrasses: Baron, Birka, Haga, Sydsport, Majestic, Plush; Perennial Ryegrasses: Barry, Yorktown II; Fescues: Banner (Chewing), Biljart (hard), Fortress Spreading Red, Highlight (Chewing), Reptans Red (Creeping); Bentgrasses: Emerald (Creeping);

Patten Seed Co
119 Murrell Ave
Lakeland GA 31635
912-482-3131
Other: Centipede Grass Seed

Pennfine Perennial Ryegrass
PO Box 923
Minneapolis MN 55440
612-781-8011
Perennial Ryegrasses: Pennfine

Peterson Seed Co
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Savage MN 55378
612-445-2606
Kentucky Bluegrasses: Monopoly, Classic, Eclipse

Otto Pick & Sons Seeds Ltd
Box 126
Richmond Hill ON
Canada L4C 4X9
416-884-1147
Kentucky Bluegrasses: America, Banff, Nugget, Touchdown; Perennial Ryegrasses: Blazer, Fiesta; Fescues: Agram, Mustang, Tournament; Bentgrasses: Exeter; Other: Futura Blue, Futura Boulevard, Nature's Meadow Wildflower Seed

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Canada J2S 7B4
514-799-4586
Seed Types: Banff KY Bluegrass, Cheri KY Bluegrass, Dormie KY Bluegrass, Fylking KY Bluegrass, Nugget KY Bluegrass, Ram I KY Bluegrass, Touchdown KY Bluegrass, Barone KY Bluegrass, Adelphi KY Bluegrass, Merion KY Bluegrass, Park KY Bluegrass, Canon Canada Bluegrass, Common Canada Bluegrass, Reubens Canada Bluegrass, Agram Chewing Fescue, Jamestown Chewing Fescue, Pennlawn Creeping Red Fescue, Tournament Hard Fescue, Blazer Ryegrass, Fiesta Ryegrass, Derby Ryegrass, Manhattan Ryegrass, Pennfine Ryegrass, Exeter Colonial Bentgrass, Penncross Creeping Bentgrass, Emerald Creeping Bentgrass, Astoria Coloniale Bentgrass, Seaside Creeping Bentgrass, Highland Coloniale Bentgrass

Otto Pick & Sons Seeds Ltd
RR 2 Box 4 Group 200
1885 Brookside Blvd
Winnipeg MB
Canada R3C 2E6
204-633-0088
Kentucky Bluegrasses: Nugget, Touchdown, A34 Benson, America, Ram I, Banff, Cheri, Fylking, Dormie, Baron, Adelphi, Glade, Birka, Merion, Park; Fescues: Agrams, Jamestown, Banner (Chewing), Fortress, Pennlawn, Reptans, Barel (Creeping), Tournament, Biljart (Hard); Bentgrasses: Exeter, Highland (COL), Penncross, Creeping, Penneagle, Emerald, Seaside

Pickseed West Inc
PO Box 888
Tangent OR 97389
503-926-8886
Kentucky Bluegrasses: America, Bensun (A-34), Banff, Nugget, Touchdown; Perennial Ryegrasses: Blazer, Dasher, Fiesta, Jazz; Fescues: Mustang & Maverick (Tall), Agram (Chewing), Spartan & Tournament (Hard), Azay Sheep; Bentgrasses: Exeter Colonial; Turfseed Mixes or Blends: Futura Plus (Blazer, Dasher & Fiesta Perennial Ryegrass); Other: Colt poa trivials

Pioneer Hi-Bred International
See Peterson Seed Co

Prairie Seeds Ltd
RR 1
South Edmonton AB
Canada T6H 4N6
Kentucky Bluegrasses: Adelphi, Baron, Glade, Haga, Nugget, Ram I, Regent, Sydsport; Perennial Ryegrasses: Common, Derby, Manhattan, Norlea; Fescues: Highlight, Jamestown (Chewing), Boreal, Pennlawn (Creeping red); Bentgrasses: Penncross, Penneagle, Prominent; Turfseed Mixes or Blends: (Standard Park Mix) Crested Wheatgrass, Creeping Red Fescue, Kentucky Bluegrass, Annual Ryegrass; (Southern Roadside Mix) Parkway Crested Wheatgrass, Kentucky

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Roberts Seed Co
PO Box 206
Tangent OR 97389
Kentucky Bluegrasses: Proprietary Bluegrasses; Perennial Ryegrasses: Proprietary Ryegrasses; Fescues: Proprietary Turf Types; Bentgrasses: Proprietary Bentgrasses

Rothwell Seeds Ltd
PO Box 511
Lindsay ON
Canada K9V 4S5
705-324-9591
Kentucky Bluegrasses: Adelphi, Glade, Eclipse, Geronimo, Classic, Julia, Midnight, Harmony, Merit (Regent) Welcome; Perennial Ryegrasses: Pennant, All Star, Pennfine, Manhattan, Diplomat, Derby; Fescues: Barfalla Chewings, Hard & Sheeps, Creeping Red, Koker (Chewings); Bentgrasses: Bardot, Prominent, Pennecrosse, Penneagle, Colonial, New Zealand Browntop; Turfseed Mixes or Blends: By prescription; Other: (Agricultural Seeds) Alfalfa, Red Clover, Crownvetch, Birdsfoot Trefoil, Timothy Bromegrass, OrchardGrass, etc.

★O M Scott & Sons Co
14111 Scottslawn Rd
Marysville OH 43041
513-644-0011
Kentucky Bluegrasses: Victa, Bristol, Merit; Perennial Ryegrass: Loretta, Pennant; Turfseed Mixes or Blends: Utility Turf, Transistion Sports Turf, Winter Turf

Seed Production & Introduction Corp
PO Box 923
Minneapolis MN 55440
612-781-8011
Kentucky Bluegrasses: Rugby; Perennial Ryegrasses: Pennfine

Seed Research
29730 Harvest Dr
Albany OR 97321
503-757-2663
Bentgrasses: Prominent Creeping Bentgrass; Turfseed Mixes or Blends: Champion=Prelude, Premier, Palmer

Southern Turf Nurseries
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Stanford Seed Co
Muddly Creek Rd
RR #1 Box 405
Denver PA 17517
215-267-3805
Kentucky Bluegrasses: Common and many proprietary varieties; Perennial Ryegrasses: Common and many proprietary varieties; Fescues: Tall, Creeping, Chewings; Bentgrasses: Common and many proprietary varieties; Turfseed Mixes or Blends: Mixed to customers specifications

Sunbelt Seeds Inc
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Norcross GA 30071
404-448-9932
See Listing for Lofts Seed Inc

Tee-2-Green Corp
PO Box 250
Hubbard OR 97032
503-981-9574
800-547-0255
Bentgrasses: Penncross (Creeping), Penneagle (Creeping)

★Turf Merchants
PO Box 1467
Albany OR 97321
503-491-3622
Perennial Ryegrasses: Manhattan II, Barry

★Turf-Seed Inc
PO Box 250
Hubbard OR 97032
503-981-9571
Kentucky Bluegrasses: Columbia, Sydsport, Midnight, Bensun (A-er), Challenger; Perennial Ryegrasses: Citation II, Omega II, Birdie II, Manhattan II Fescues: Flyer Creeping Red Fortress Red, Shadow Chewings, Shadow Fine, Waldina Hard, Aurora Hard, Olympic Tall, Falcon Tall, Bonanza Tall, Apache Tall; Bentgrasses: Penncross Creeping, Penneagle Creeping; Turfseed Mixes or Blends: Polo Brand Mixture: Kentucky Bluegrass, Perennial Ryegrass, Fine Fescue - Galaxy: Columbia, Midnight, Challenger, Sydsport - Triathalawn: Olympic, Apache, Bonanza

Vaughan's Seed Co
5300 Katrine Ave
Downers Grove IL 60515
312-969-6300
Seed Types: Adelphi KY Bluegrass, Citation Perennial Ryegrass

Vaughan's Seed Co
Chimney Rock Rd
Bound Brook NJ 08805
201-356-4200
Seed Types: Adelphi KY Bluegrass, Glade KY Bluegrass, Cheri KY Bluegrass, Merit KY Bluegrass, Touchdown KY Bluegrass, Pennant Perennial Ryegrass, Citation Perennial Ryegrass, Regal Perennial Ryegrass

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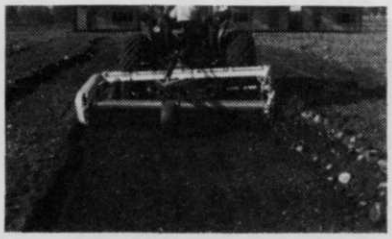

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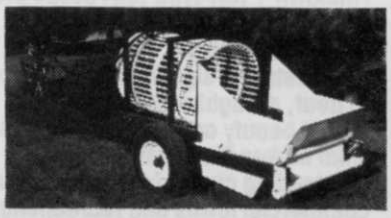

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★ Warren's Turf Nursery Inc
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707-422-5100 CA
800-828-8873

Kentucky Bluegrasses: A-34 BenSun;
Fescues: Adventure (Tall)

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52 Leslie St
Buffalo NY 14211
716-896-1111
Seed Types: Pennfine Perennial Ryegrass, Manhattan Perennial Ryegrass, Manhattan II Perennial Ryegrass, Rugby KY Bluegrass

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Circle No. 168 on Reader Inquiry Card

NEW 10 GALLON WS-490
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The 10 gallon Greens Wheelie is the most accurate and trouble-free liquid applicator manufactured. It features a motorless, ground-driven pumping system which does not require gasoline, batteries, cords or water hoses. It was designed for professional grounds maintenance on golf courses, parks, institutions and cemeteries.

The Greens Wheelie is used to apply liquid fertilizers, herbicides, fungicides, insecticides and growth regulators. It is equipped with large easy-to-push pneumatic type tires and a large 10 gallon tank with a wide mouth lid for easy filling.

The twin wheel pumps spray a fan of solution 6' wide, with an overlap at the center, at the rate of 1000 sq. ft. per gallon. The spray pattern is delivered from 2 nozzles in the form of tiny droplets providing a steady, uniform application which greatly reduces costly chemical drifting. The shut-off controls, located on the handle grips, allow the operator to regulate the nozzles independently.

Corrosive resistant materials are used in the construction of the shut-off valves, pumping system and the 10 gallon tank allowing the use of chemicals which are harmful to traditional liquid applicators.

The WS-490 Greens Wheelie delivers chemical applications which are relatively unchanged by the speed at which the sprayer is pushed. The faster it is pushed, the faster it pumps. When the operator stops, the sprayer stops pumping. (Other models and sizes available.)

WHEEL SPRAY CORPORATION
Box 97, Delafield, WI 53018 — PH: (414) 646-8640

Circle No. 172 on Reader Inquiry Card

PROBLEM SOLVERS

by **Balakrishna Rao**, Ph.D

Quackgrass headaches

Problem: *I think we have a quackgrass problem in our lawn. Would you please describe how it can be identified and also how it can be controlled? I would appreciate your comments. (Pennsylvania)*

Solution: Quackgrass (Agropyron repens) is a perennial weed which spreads by lateral, underground, whitish stems called rhizomes with many nodes (joints) and pointed tips. These tips can turn upward and become fast-growing leafy shoots. The plant produces roots from the nodes. Every leaf has a membranous "ligule" at the base of the leaf where it joins the sheath, and a pair of small, hook-like "auricles" which clasp around the stem.

There is no herbicide registered for selectively removing quackgrass from established lawns. Nonselective herbicides like Roundup can be used but they will kill the desirable grass also. A quackgrass problem can be minimized by following good cultural practices.

Reports indicate quackgrass is not able to compete with a well-maintained turf with good density. Repeated mowing, especially if the mower is not set low, can create stress on quackgrass. Maintain a good turfgrass management program, such as mowing and fertilization, to improve the density and health of desirable turfgrass. Well-maintained turfgrass may crowd out and reduce quackgrass over a period of several years. Remember that reinfestation of quackgrass can occur through seeds or rhizomes from nearby areas or from topdressing materials.

Moles a gridiron problem

Problem: *How do you get rid of ground moles in a football field? (Michigan)*

Are there any new products to eradicate moles other than using Oftanol for grubs? (Indiana)

Solution: Moles damage lawns and gardens through their tunneling activities in search of insect larvae and earthworms. They dig a network of deep tunnels (10-18 feet deep) for permanent use and a network of surface burrows with characteristic ridges of soil above them for temporary use.

These tunnels cause grass roots to die and present a problem while mowing. Moles are active tunnelers and can tunnel at a rate of 12-15 feet per hour. Sometimes surface tunnels can be formed at a rate of one foot per minute. Surface tunnels are used once for feeding and then abandoned.

Moles are difficult to control because they live mostly within their deeper tunnels. Common control measures include: trapping, elimination of food supply by use of insecticides, use of poisonous baits, or fumigation. Trapping and the elimination of insects are the most effective control measures.

Traps (harpoon or choker seem to work best) should be set near tunnels that are in current use. To detect inhabited tunnels, roll or tramp down the ridge of soil. If the tunnels are raised the next day, set the trap in that place and repeat this for several days. Deeper tunnels can be located by pushing a pointed rod or stick into the ground.

If grubs are the major source of food they should be controlled with insecticides. Poisoned baits are usually not effective because moles, being carnivorous, generally ignore them. Gas treatments don't solve the problem because gases diffuse out of the tunnels.

However, reports indicate that a fumigant tablet called Phostoxin can effectively eliminate moles.

First, inspect the property and detect all active burrows showing signs of freshly excavated soil. Abandoned burrows often end abruptly and collapse. For effective control, large portions of active burrows should be treated. Carefully make holes in the top of the burrows and place two Phostoxin tablets every five to ten feet in the active burrows. Moist but not wet conditions are preferred for treatment. Seal the hole with wadded paper and soil. Wait for three days and then tramp or roll the untreated area. Repeat treatment may be necessary if new burrows develop. Read the label and follow the directions.

Another report suggests that Juicy Fruit gum (Wm. Wrigley Jr. Company) also can manage the mole problem. Wear gloves to avoid getting human scent on the gum, make holes in the active burrows, unwrap a fresh pack of gum, roll each piece like a carpet, place them in the burrows, and seal the openings with sod. Moles cannot digest chewing gum and die a day or so after eating it.

Unsightly raised areas should be leveled with light rolling using a tank roller without the water. Make sure the area is moist but not wet to avoid compaction. This should help minimize problems during mowing.

Balakrishna Rao is Director of Lawn Care Technical Resources for Davey Tree Expert Co., Kent, OH.

Questions should be mailed to Problem Solver, Weeds Trees & Turf, 7500 Old Oak Boulevard, Cleveland, Ohio 44130. Please allow 2-3 months for an answer to appear in the magazine.

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Circle No. 226 on Reader Inquiry Card

Nutrient pellets feed container stock

Controlled release plant nutrition in the form of egg-shaped pellets might be a valuable tool for nurserymen in keeping container stock healthy and vigorous for long periods of time. One company, Estech, Inc., will soon introduce a 6-gram "briquette" to complement its established 16-gram Woodace pellet.

Research conducted at the Burden Research Center, near Baton Rouge, LA, by Director Dr. Warren Meadows and Don Fuller, a research associate, suggests smaller packaged briquette formulations could have advantages nurserymen might want to consider. But are they effective?

Yes, say the researchers.

Nurserymen who use fertilizer briquettes correctly can maintain the vigor of stock long after it is moved into wholesale channels and even several months beyond.

The root system of the containerized plant surrounds the briquettes, and the matrix—the coating which surrounds the actual plant food—maintains a desirable rate of release for use by the plant.

The Woodace briquettes contain IBDU as the source of nitrogen. IBDU is known for slow release by soil hydrolysis; the product does not require soil bacterial action to release.

High temperatures do not appreciably increase the rate of nitrogen release and cold weather slows release only slightly and where needed. Plants have the opportunity to harden off.

The researchers note the smaller-sized pellets provide more surface area (in relation to their size) and a higher release pattern.

New 6-gram briquettes.

And they are handy. Application using a dibble is made only once during the growing season.

Error is minimized because workers are given a number of briquettes to add to each container—as opposed to having to measure a specific amount. Also, no topdressing is needed as is common, usually on a monthly basis.

Also, briquettes are not subject to leaching. Container plants normally get ½ inch of water daily and a quick release nitrogen will readily leach, with loss to the owner.

Although the studies concentrated on the use of briquette plant nutrition for container stock in 1 and 3-gallon containers, preliminary trials indicate excellent potential for the 5, 10, 20, 30, and 50 gallon containers also. The research center recently began formal studies on these larger sizes. Greater periods of control release plant feeding may be possible.

"I think their (briquettes) potential is going to be in the larger containers because of the long release factor," says research associate Fuller. "There might be some potential in using the briquettes on outside landscape material also."

But Fuller feels acceptance of the briquettes will ultimately be determined by commercial cost effectiveness.

Researchers feel they can take most any fertilizer material on the market today and adapt it to use on woody ornamentals. But each material has a prescribed use determining both amount and frequency of application. A grower finds what best fits his own operation.

Nurserymen may be using more of the controlled release, briquette form of nutrition to provide healthy and attractive stock months beyond the nursery itself, a better situation for grower and dealer. Fuller says it's not uncommon for retailers to get plants and not know how to handle them until they show symptoms of being nutritionally starved.

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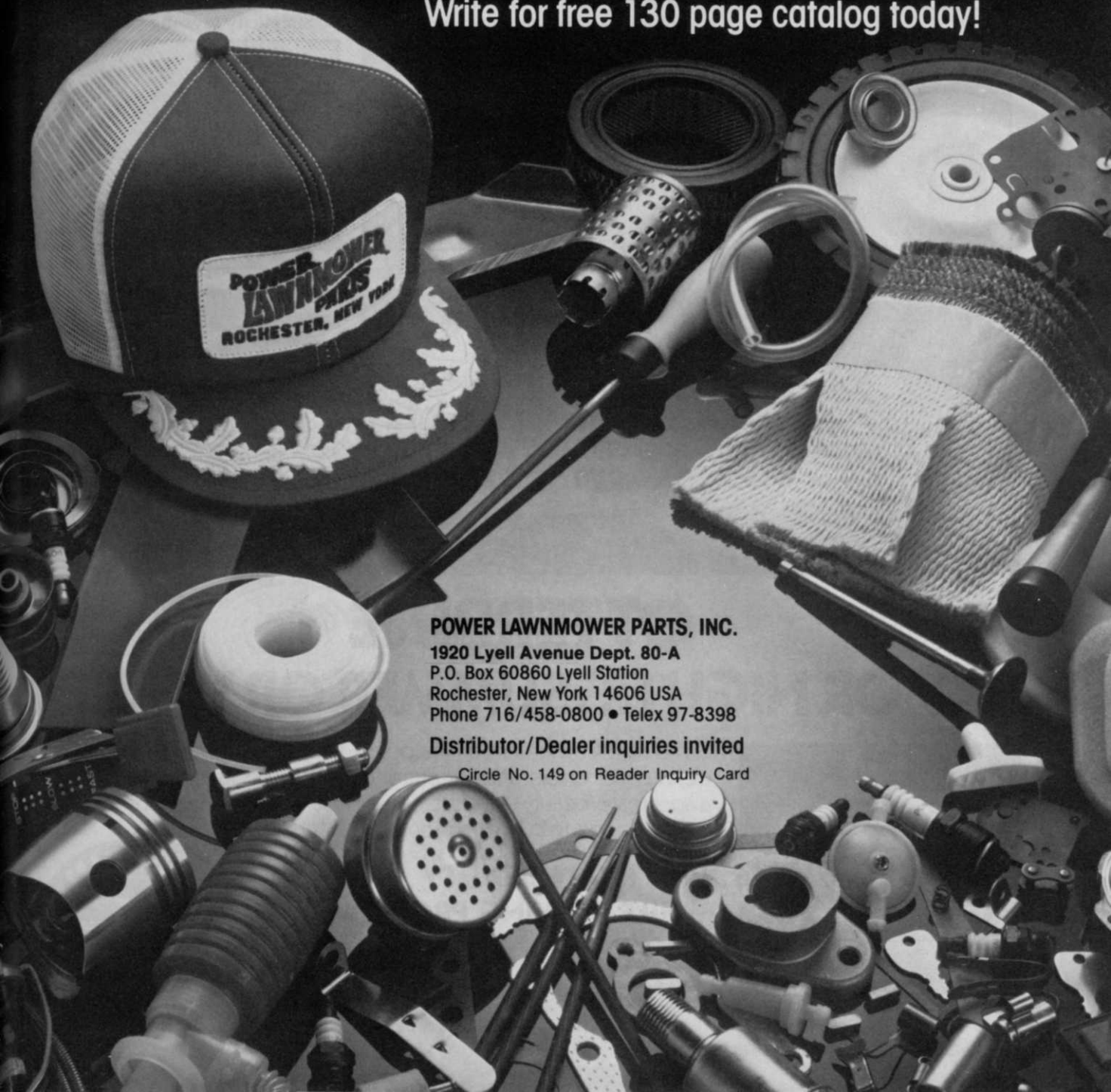

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Distributor/Dealer inquiries invited

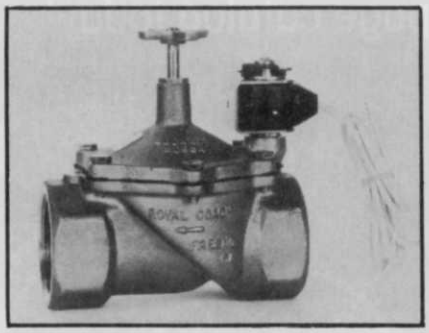
Circle No. 149 on Reader Inquiry Card

Buckner brass valve contamination resistant

The Series 20930 brass valve from Buckner Irrigation is available from ¾-inch through two-inch NPT size. The contamination-resistant valve features a unique three-way operating solenoid, eliminating the need for continuous flow through the upper diaphragm chamber, reducing the opportunity to clog.

The Series 20930 can be used in low-flow drip irrigation and other large turf applications where dependability is a necessity.

Circle 190 on Reader Inquiry Card



Salsco introduces new greens/tees aerifier

Salsco, manufacturer of core aerators for the lawn care industry and seeding-fertilizing units, now makes the Model 30-12 greens & tees aerifier.

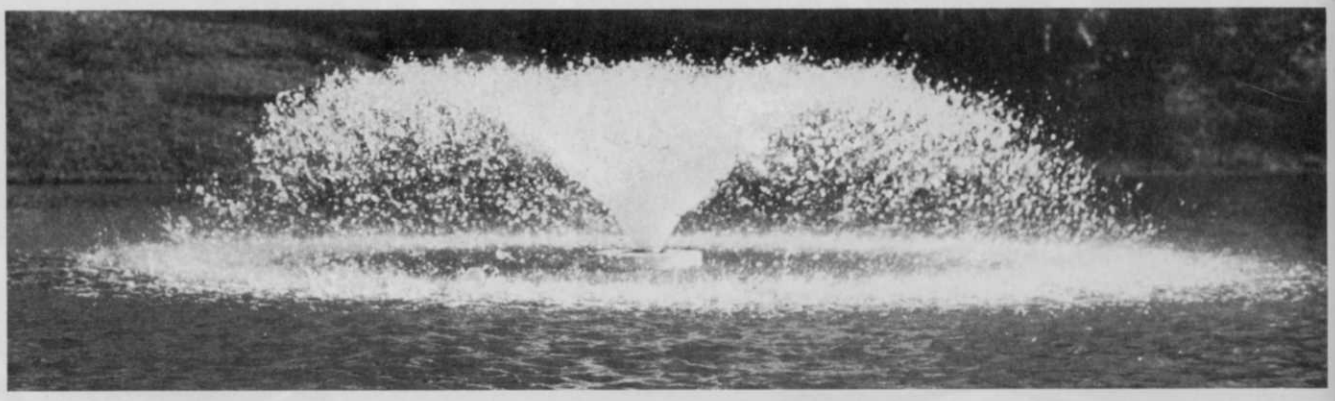
Sealed roller bearings and oil impregnated bushings are standard on this unit which turns in a 40-inch radius and can be disassembled in 45 minutes. Salsco says the Model 30-12 covers over 13,000 square feet per hour, has a minimum penetration depth of 2-3/4 inches and a hole pattern of 2-1/4 x 2-3/4 inches.

Circle No.191 on Reader Inquiry Card

Simplicity offers new cart/grass collector

The new Cart Collector by Simplicity features a 10-bushel capacity. It's a steel, dual-purpose cart, adaptable for simple hauling chores, and also a 10-bushel capacity grass collector.

Simplicity says the Cart Collector



OTTERBINE
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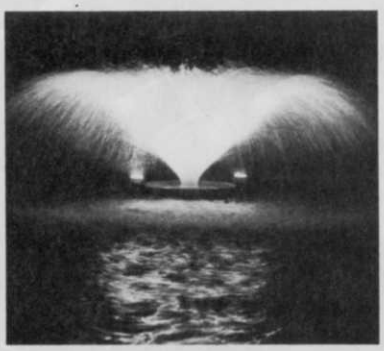

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If you haven't checked out the Professional Lawn Care Association of America recently, then you're in for a surprise. We're offering a bundle of new benefits that make joining PLCAA more rewarding than ever! We even have a new name for our service—**The ProSource.** Here's what we've been up to and how you can benefit:

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- **NEW! Public Issues Alert Committee**—continually updates the membership on regulations and legislation—local, state, and national—that affect the lawn care industry. A resource for understanding and involvement in the public issues vital to the future of your business.
- **Plus a Whole Lot More...**PLCAA membership offers, in addition to these new benefits, an impressive lineup of publications and programs that are invaluable to any lawn care business: • **PLCAA Technical Resource Manual.** An important guide for helping to operate your business on a professional and agronomically sound basis. • **Turf Talks,** PLCAA's bi-monthly member newsletter. • **PLCAA Regional Seminars.** Intensive, one-day sessions offered on a regional basis and at a reduced fee to members. • **Annual PLCAA Conference and Show.** The week-long gathering of the best in lawn care that has become the one must convention of the year. • **The Professional Lawn Care Credit Association**—On hand to help you meet your delinquent account collection needs. • **Insurance Clout**—Comprehensive Property and Casualty Insurance that offer members excellent protection at competitive rates.

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The ProSource

Symbol of Good Practice
PLCAA
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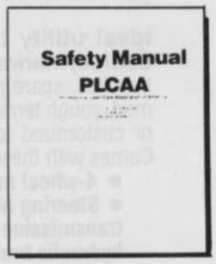


Join now and receive FREE your copy of the new PLCAA **Safety Manual,** a 64-page pesticide and safe practices guide.

can be used with its rear-engine mowers and lawn tractors from 8 to 16 hp and is designed for mowing large lawns. A large door makes it easy to empty or dump the contents and the cover is quickly removed for hauling chores.

Circle No. 192 on Reader Inquiry Card

Allis-Chalmers introduces two new walk behinds

New 22-inch Groomer and new 20-inch Trimmer walk-behind mowers are being offered by Allis Chalmers. The 22-inch model is powered by a 3 1/2-hp Briggs & Stratton engine, the 20-inch mower by a 3-hp B&S. Both models meet or exceed Consumer Products Safety Commission standards.

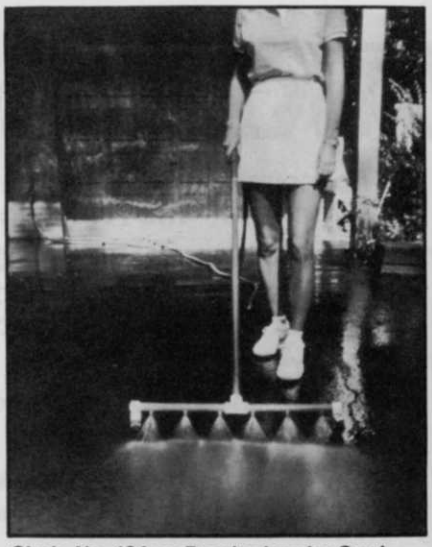
The mowers feature automatic choke and handle-mounted controls. The engine shuts off when the safety bar is released. A side discharge deflector sends stones or other foreign objects downward. Both mowers come with double wall steel support and large semi-pneumatic tires mounted on steel wheels.

Circle No. 193 on Reader Inquiry Card

Water broom uses less water, cleans faster

Rambo's EZ-Washer converts any garden hose into an effective surface washer for driveways, sidewalks, patios, pool decks, or garage floors. It does a better job than a conventional hose alone in 1/3 the time and using 1/3 the water.

It is made of rustproof polyvinyl chloride and uses six corrosion-resistant PVC jets to create a 33-inch spray path. The EZ-Washer's swivel couple attaches to ordinary garden hoses, and non-marking rubberex wheels give the unit maneuverability.



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Circle No. 136 on Reader Inquiry Card

EVENTS

SEPTEMBER

International Garden Horticultural Industry Association Convention and Exposition, Sept. 3-7, Louisville Convention Center, KY. Contact LeRoy Rench, IGHIA, 26 Pine St., Dover, DE 19901. (302) 736-6781.

Advanced Interior Maintenance Technician Short Course, Sept. 7, Airport Hilton, Atlanta. Contact ALCA office, 405 N. Washington St., Falls Church, VA 22046. (703) 241-4004.

National Lawn & Garden Distributors Association Convention, Sept. 8-11, Intercontinental Hotel, San Diego, CA. Contact Bill Robinson, 1900 Arch St., Philadelphia, PA 19103. (215) 564-3484.

Cornell University Turfgrass Field Day, Sept. 10, Turfgrass Research Station, Ithaca, NY. Contact Dr. Norman Hummel, 20 Plant Science Building, Ithaca, NY 14853. (607) 256-3134.

Ohio Turfgrass Field Day, Sept. 12, OSU Turfgrass Research Center, Columbus. Contact Karl Danneberger, Dept. of Agronomy, OSU, Columbus, OH 43210. (614) 422-2001.

Virginia Tech Turfgrass Research Field Days, Sept. 17-19, Blacksburg, VA. Contact J.R. Hall III, Agronomy Department, VA Tech, Blacksburg, VA 24060. (703) 961-5797.

Mid-Year Turfgrass Conference & Show, Sept. 19-24, Indiana Convention Center & Hoosier Dome, Indianapolis. Contact GCSAA, 1617 St. Andrews Drive, Lawrence, KS 66044. 1-800-472-7878.

Western Fertilizer & Pesticide Safety Seminar, Sept. 23-24, Centre Plaza Holiday Inn, Fresno, CA. Contact WACA, 6650 Belleau Wood Lane, Suite 209, Sacramento, CA 95822. (916) 393-4050.

Society of Municipal Arborists Meeting and Trade Show, Sept. 22-24, Holiday Inn Mart Plaza, Chicago. Contact Robert Benjamin, P.O. Box 66113, A.M.F. O'Hare, IL 60666. (312) 569-2578. Or Dale Gaasland, RR 3 Box 614, Williston, ND 58801. (701) 774-0485.

Interior Design Workshop, Sept. 27, Tyson's Corner Holiday Inn, Washington D.C. Contact ALCA office, 405 N. Washington St., Falls Church, VA 22046. (703) 241-4004.

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LANDSCAPE MAINTENANCE SALES—Established, fast-growing Houston firm seeks career oriented self-starter. Degree or experience in landscape sales. Salary, car, commission and bonus. Grounds Management Service Inc., P.O. Box 42812B155, Houston, TX 77042. 713-780-8699. 9/85

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Phone 608-429-3402

New staff, new directions

The name is Jerry Roche, and I'm one of the new guys on the block. Since becoming editor of WEEDS TREES & TURF on July 1st, I've met many of you and plan to meet many more. Because you, the reader, are our most valued attribute.

Associate editor Ron Hall, managing editor Ken Kuhajda (who is also new to the staff) and I are planning exciting new directions for WEEDS TREES & TURF. We'd like to spit-shine this already-excellent product.

And what perfect timing: this month's GCSAA Mid-Year Conference is a good lead-in to the heavy schedule of fall/winter turf conferences. We'll be there, all three of us. And we also hope to meet you at the numerous other national and state shows.

We value your opinions, and will use them as the basis for making WT&T better than ever.

That said, here's a bit of our philosophy:

* * * * * *

Every once in a while, a reader asks us to compare landscape maintenance equipment and chemicals. You want to know which kind of mower, cart, shredder, herbicide or backhoe to buy. That is understandable—the success of your business hinges on getting the best value for your money.

But our articles cannot—and should not—be required to tell you what piece of equipment is best for your particular situation. Some of our best advertisers are equipment and chemical manufacturers. For us to say that the Jones All-Purpose Mower is better than Smith's Universal Mower would be like the dog biting the hand that feeds it.

The best that we—a responsible and forthright trade magazine—can hope to do is to provide our readers with many different options. It is your job, in turn, to whittle down your choices from the alternatives we present, and contact the people who appear to be able to make you the best offer.

Even though we at WT&T cannot do your job for you, we *can* help you do your job more efficiently while serving our advertisers at the same time. There is nothing we like better than to see one of our readers strike a good deal with one of our advertisers.

Jerry Roche

Jerry Roche, editor

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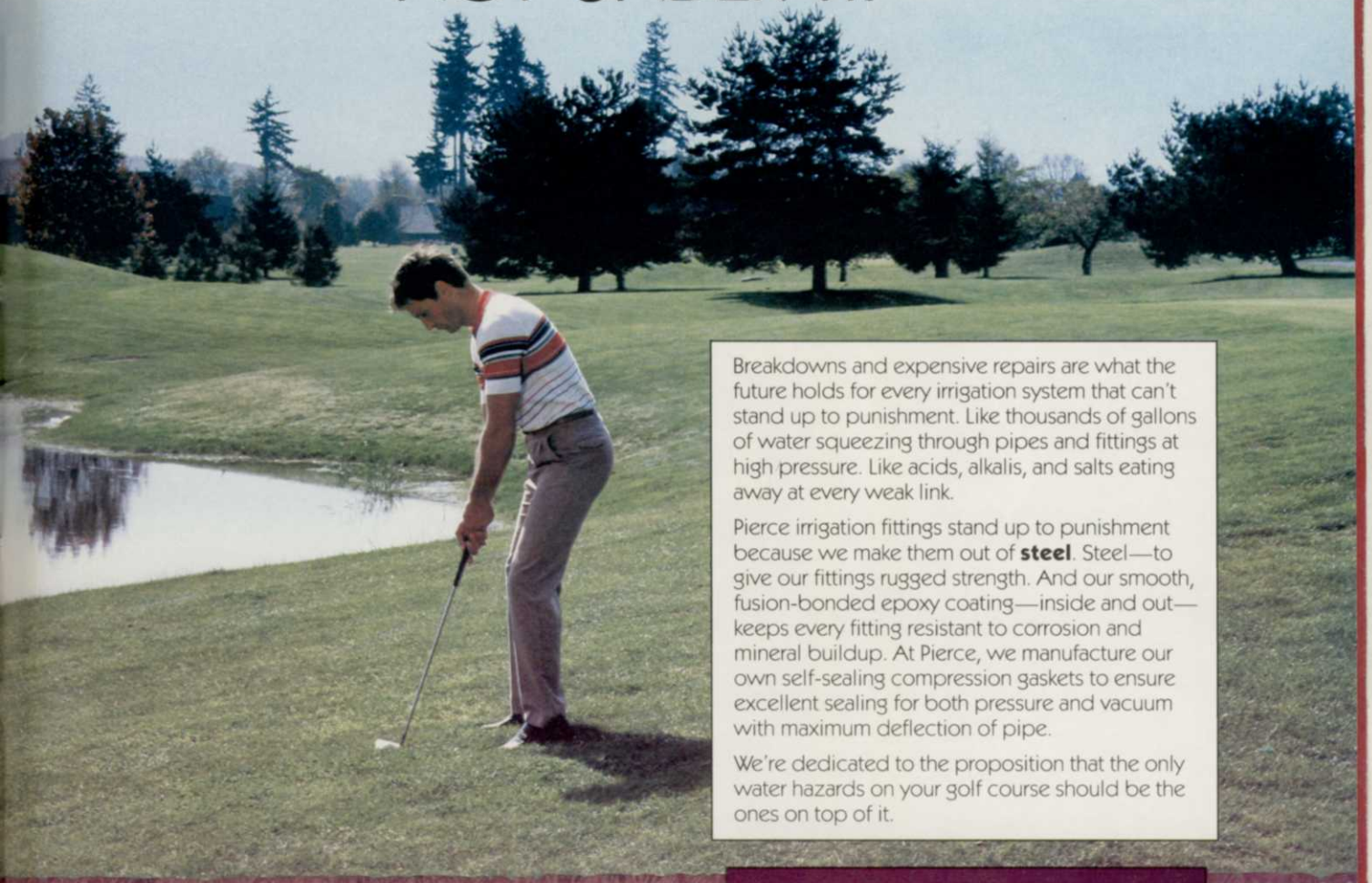
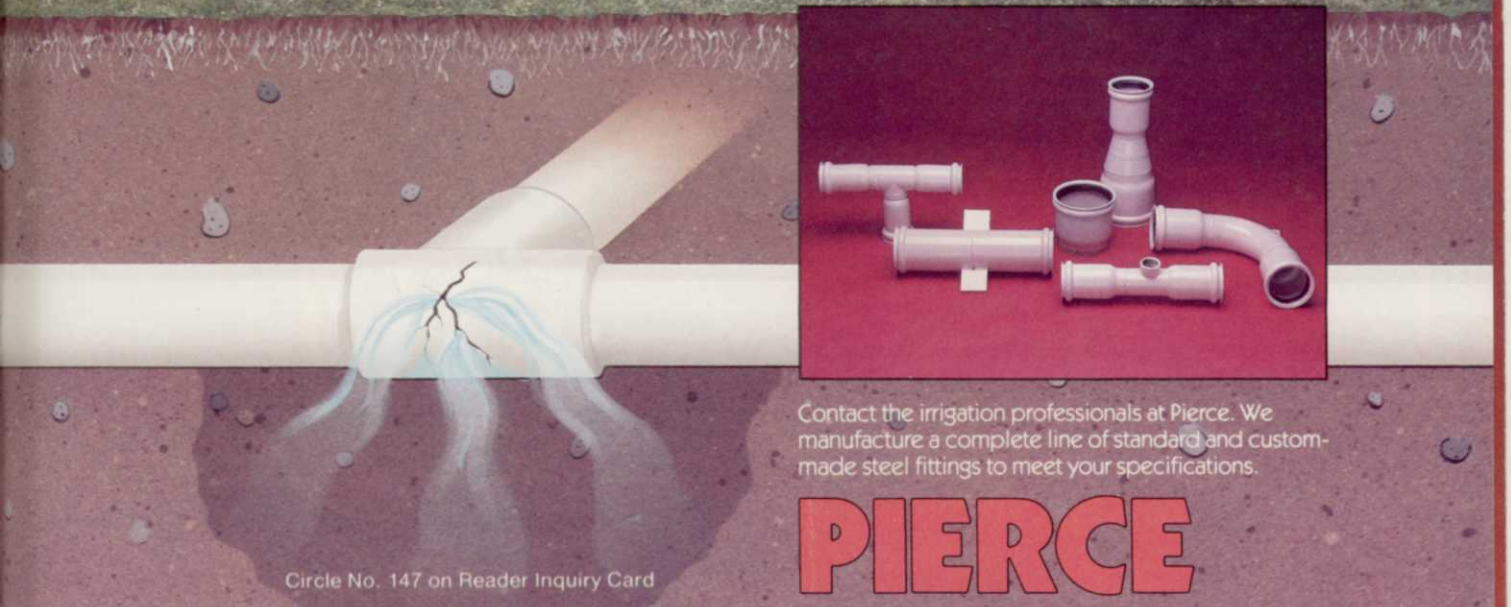
WATER HAZARDS SHOULD BE ON THE GOLF COURSE. NOT UNDER IT.



Breakdowns and expensive repairs are what the future holds for every irrigation system that can't stand up to punishment. Like thousands of gallons of water squeezing through pipes and fittings at high pressure. Like acids, alkalis, and salts eating away at every weak link.

Pierce irrigation fittings stand up to punishment because we make them out of **steel**. Steel—to give our fittings rugged strength. And our smooth, fusion-bonded epoxy coating—inside and out—keeps every fitting resistant to corrosion and mineral buildup. At Pierce, we manufacture our own self-sealing compression gaskets to ensure excellent sealing for both pressure and vacuum with maximum deflection of pipe.

We're dedicated to the proposition that the only water hazards on your golf course should be the ones on top of it.



Contact the irrigation professionals at Pierce. We manufacture a complete line of standard and custom-made steel fittings to meet your specifications.

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Seeding REBEL in late September

Only seven weeks after seeding, REBEL provides a rich carpet of dense, fine-leafed turf on Washington D.C.'s Congressional Country Club, Bill Black, Greens and Grounds Chairman.

Proven performance makes Rebel number one.

Rebel TURF TYPE TALL FESCUE

University tests across the country have proven most tall fescues have some good qualities; but in overall performance Rebel beats them all.

1982 Turfgrass Quality Ratings for Tall Fescue Varieties Tested at Eleven Locations in the United States

	University Test Location, Quality Ratings 1-9; 9 = Best											
Variety	**NE**	**KS**	**MO**	**IL**	**GA**	**KY**	**MD**	**MS**	**NC**	**NJ**	**VA**	**AVERAGE**
REBEL	6.7	7.7	7.0	5.6	8.2	7.5	6.5	4.8	7.0	7.6	6.8	6.9
Falcon	6.3	7.6	6.8	5.3	7.7	6.9	6.6	4.8	6.2	7.3	6.4	6.5
Olympic	6.3	7.3	—	5.0	8.1	6.5	6.3	4.2	5.8	6.6	6.4	6.3
Clemfine	—	7.2	—	—	7.3	6.3	5.9	4.1	6.3	4.6	5.9	6.0
Galway	—	7.0	—	5.1	7.5	6.0	6.4	4.8	6.1	5.1	5.5	5.9
KY-31	5.1	7.2	5.5	5.3	6.8	6.3	5.2	4.1	5.9	3.6	5.4	5.5

In these trials, turfgrass varieties were evaluated for appearance, establishment and quality of stand, resistance to drought and disease, and mowing qualities. REBEL took top honors in all-around attractiveness and performance:

BEARD COLLECTION

- Resists heat, drought and disease
- Fine-textured (30% finer-leaved than Kentucky 31)
- Dense stand (188% denser than Kentucky 31)
- Excellent shade tolerance
- Rich color
- Fast establishment

For an all-around, top-performing tall fescue, try REBEL. Test it for yourself.

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